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Accountants' Involvement in Corporate Environmental Governance in Malaysia: Case Evidence Within the Automotive Industry

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Abstract

This study investigates the involvement of corporate accountants in corporate environmental governance (CEG) of car manufacturers and assemblers within the Malaysian automotive industry. On the basis of System Thinking, proponents of CEG suggest that a firm and its sub-system which includes the people such as the corporate accountants should act as a system to successfully address the environmental issues. However, to date, only few studies have investigated on corporate accountants' involvement in CEG particularly within the Malaysian automotive industry context. This paper thus contributes to fill this gap in the literature by examining corporate accountants' involvement in CEG within the automotive industry in Malaysia. Adopting a single case study method, this exploratory study collects data through semi-structured interviews and document reviews from an automotive case firm operating in Malaysia. Consistent with the literature, the findings indicate limited active involvement of corporate accountants in the case firm's CEG. Nevertheless, a broad-based study involving manufacturing companies across industries in Malaysia may provide a better picture of the involvement of corporate accountants in CEG within the local scenario.

Keywords: Corporate environmental governance, Accountants' involvement, Environmental accounting, Automotive industry.

Paper type: Case study

1. Introduction

Globalization and industrial development have caused worldwide concern over increasing environmental deterioration issues. Pollution, scarcity of renewable energy, and depletion of natural resources are among the issues which have been put to the fore in addressing the concepts of environmental sustainability and sustainable development (Khairani, Rajamanoharan, & Thirumanickam, 2014; Severo, deGuimaraes, Dorion, & Nodari, 2015; Masukujjaman, Siwar, Mahmud, & Shah Alam, 2016). The manufacturing industry which is perceived as the prime contributor to environmental deterioration, face the challenge to integrate environmental factor within their business operations to protect the environment by minimizing their adverse environmental impacts (Qureshi , Md. Rasli, Jusoh , & Kowang, 2015).

This development is particularly experienced by firms within the environmental sensitive industries such as the automotive industry (Orsato & Wells, 2007; Zhu, Sarkis, & Lai, 2008), which is the focus of this study. The nature of the automotive industry is such that the product and the production processes posed significant threats to the natural environment thoughout the product's life cycle (GRI, 2004; Koplin, Seuring, & Mesterharm, 2007).Shukla, Deshmukh and Kanda (2009) highlighted that the long and complex process of the automotive industry's supply chain poses potential threats to the environment. This is due to the excessive usage of materials and large generation of waste, heat as well as emission involved along the process (Shukla et al., 2009).

Proponents of sustainable manufacturing (e.g., Environment Agency, 2004; Chaves, 2010; Qureshi et al., 2015) thus suggest for manufacturing firms including those within the automotive industry to respond to the environmental calls by adopting corporate environmental governance (CEG). CEG is about how organizations manage and minimize the negative environmental impacts of its entire business operations (Rao, 2008). By adopting a holistic perspective, proponents of CEG (Hart, 1995; 1997; Sangle, 2002; White & Kiernan, 2004; Currin, 2012; Litt, Sharma, & Sharma, 2013) highlighted the need for firms to adopt CEG which incorporates environmental considerations into various aspects of business operations to achieve both competitive advantage and environmental sustainability. Sangle (2002) for instance, suggests the need to handle environment as a firm's technical, operational as well as strategic issues. On a similar note, Khairani et al. (2014) suggested that as a reaction of firms towards various environmental-related pressures, CEG has evolved from a passive and non-committed approach to a holistic, innovative-oriented approach which is not only internally focused, but has extended to cover the supply chain. An earlier work by the Environment Agency (2004) have suggested that effective environmental governance requires five key business considerations: 1) environmental value; 2) environmental policy; 3) people/oversight; 4) process; and, 5) performance measurement system. As suggested by Nunes & Bennet (2010), a firm and its sub-system including the people and the technology should act as a system to address the environmental issues successfully.

From the accounting perspective, the Institute of Management Accountants (IMA) Statement on Management Accounting: Tools & techniques of Environmental Accounting for business decisions (1996) highlighted that competitive advantage may be gained by creating and capitalizing on environmental cost. This is because environmental cost is the business information not commonly considered by competitors (Emery, 2004). The tools and techniques of environmental accounting are claimed as having the potential to aid the management in uncovering any hidden and misallocated environmental cost for better business decisions (IMA, 1996). Along this line of discussion, Jasch (2006) and Sulaiman and Nik Ahmad (2006) perceived environmental accounting as accountants' contribution towards environmental sensitivity in organizations. As put to the fore by IMA (1996), environmental accounting among other things, aims to support the development as well as the operation of the company's CEG. In addition, management accountants have an important role in the corporate environmental team. As pointed out by IMA (1996), proactive firms recognize the need to incorporate environmental

considerations into decisions made throughout the organization. This thus entails combined skills of people from various disciplines such as the environmental managers, economists, engineers, operation managers, planners, lawyers, scientists, as well as Management Accountants (MA). The potential contribution of environmental accounting and corporate accountants in firms' CEG are thus being realized.

However, the actual involvement of corporate accountants is still lagging and poorly understood. For instance, Lodhia (2003) suggested that even though environmental issues are perceived as essential for organizations, environmental accounting is not applied by firms. In addition, corporate accountants play a minimal role in the firm's CEG where their skills are not utilized in the environmental management strategies. In turn, the environmental management personnel are unaware of the potential contribution of corporate accountants by means of environmental management accounting as well as environmental reporting.

To date, a review of the Malaysian literature reveals that there is a lack of extant research from an internal perspective, particularly in the automotive industry on the involvement of corporate accountants in the deployment of CEG. Therefore, as an exploratory study that adopts a single case study approach, this study seeks to fill the current gap in the literature by examining the involvement of corporate accountants towards the greening practices adopted by the case firm.

The remaining sections of this paper are structured into three parts. The first part describes to some extent the relevant literature on the Malaysian automotive industry, CEG and accountants' involvement in CEG in general. The second part lays out the research methodology. The final part of the paper presents the findings and conclusion.

2. Relevant Literature

2.1 The Malaysian automotive industry

Located at the center of the high community ASEAN region, Malaysia is an ideal hub for the global automotive and component manufacturers (MIDA, 2010). This advantage thus turns the Malaysian automotive industry as a key contributor to the nation's economic growth (MIDA, 2010). However, it has been observed that factors such as the full implementation of the ASEAN Free Trade Area (AFTA) have adversely affected the performance of the automotive industry (Rosli, 2006). The local automotive parts and components suppliers - being mostly small and medium size business entities are experiencing the same pressure. Among others, this is due to the increasing manufacturing costs as well as lack of research and development capabilities. It is thus crucial for firms within the Malaysian automotive industry to adopt strategies in maintaining and even improving their competitive position. Recent development within the local scenario shows that the Malaysian government had revised the National Automotive Policy in 2014 to promote sustainable manufacturing processes which, is in harmony with preservation of the natural environment. Along this line of discussion, CEG is viewed by many (Von Ahsen, 2006; Zhu, Sarkis & Lai, 2007; Shukla et al., 2009; ElTayeb, Zailani, & Ramayah, 2011) as a potential means to

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gain competitive advantage particularly for the automotive industry. In addition, proponents of corporate environmental governance (e.g, Nunes & Bennett, 2010; Khairani, Kasim, Rajamanoharan, & Misman, 2017) suggest that firms use a systemic (holistic) approach to implement CEG to ensure environmental sustainability.

2.2 Corporate environmental governance (CEG)

Realizing the significant impacts of businesses and industries towards the natural environment, proponents of corporate social responsibility [CSR] have commented that the traditional definition of corporate governance failed to emphasize on the environmental obligations of businesses. Clarke (2007, p.267) for instance, argues that "the narrow focus of corporate governance exclusively upon the internal control of the firm and simply complying with regulation is no longer tenable". Clarke (2007) stressed the importance of CEG and highlighted that "corporate governance essentially will involve a sustained and responsible monitoring of not just the financial health of a company, but the social and environmental impact of the company". Hence, his argument suggests the need for a more specific CEG system. The controversial theory "Porter Hypothesis" introduced by Professor Michael Porter in 1991 is regarded as a good foundation for environmental governance practice among corporations (EnvironGrade, 2009; Chaves, 2010). The theory suggested that environmental compliance and economic competitiveness are complementary rather than inconsistent. The "Porter Hypothesis" has in recent years drawn much interest on CEG among scholars as well as practitioners (EnvironGrade, 2009; Chaves, 2010).

From an academic perspective, scholars have extended their governance and CSR interest to CEG whilst from a practitioner perspective, firms are increasing their attempts to practice and promote good environmental governance. Their aim is to ensure better environmental and business performance while demonstrating corporate environmental responsibility (Rao, 2001, 2007). At the same time, institutional investors are increasingly diversifying their portfolios by investing in sustainable companies - companies that are creating value by managing risks associated to upcoming economic, environmental and social factors (Chaves, 2010). CEG which is also commonly referred to as "environmental management" (e.g., Sroufe, Montabon, Narasimhan, & Wang, 2002; Valentine, 2009), "environmental management practices" (Rao, 2008; Menguc, Auh, & Ozanne, 2010), and "corporate environmental management" (Schaltegger, Burritt, & Petersen, 2017) is about how organizations address and mitigate the adverse impacts of its entire business operations on the natural environment (Rao, 2008). Sangle (2002) and Environment Agency (2004) suggest that CEG is essential for both the firm's economic competitiveness and environmental sustainability. Prabakaran (2010) adds that in a business sense, environmental governance is an ethical effort by a company to protect the environment in which it operates. Along this line of discussion, Strandberg (2005) had earlier argued that a huge loss in reputation and trust is suffered by firms that failed to conform to corporate governance and corporate social responsibility [CSR]. Strandberg (2005) further claims that this is because firms do not properly address CSR issues such as the natural environment in their corporate governance. Furthermore, Sangle (2002) suggested that in the current millennium, a non-comprehensive CEG may lead to failure of firms to meet their primary goal of maximizing stakeholder value.

Adopting System Thinking as the underlying theory, proponents of CEG (Environment Agency, 2004; Nunes & Bennett, 2010; Khairani et al., 2017) highlighted on the use of a holistic approach to implement CEG. Khairani et al. (2017) for instance, suggested that a comprehensive CEG should include environmental principle, policy, process, performance measurement system, and involvement of the people including the corporate accountants.

2.3 Corporate environmental governance (CEG)

In the current study, corporate accountants' involvement in CEG refers to: 1) the practice of environmental accounting (EA) which concerns both environmental management accounting (EMA) and environmental reporting; and, 2) involvement of corporate accountants in the corporate environmental team. Meanwhile "corporate accountants" are the accountants and the accounts executives who work in industries such as the automotive industry, where the operations have an impact on the environment.

As an accounting technology, environmental accounting is recognised as an important component of a successful business strategy (IMA, 1996; Yakhou and Dorweiler, 2004; IFAC, 2005; Jasch, 2006; Sulaiman & Nik Ahmad, 2006). Despite this recognition, there is minimal evidence on the adoption of environmental accounting and involvement of corporate accountants in the CEG of firms (Wycherley, 1997; Wilmshurst & Frost, 2001; Lodhia, 2003; Jalaludin, Sulaiman, & Nik Ahmad, 2011). For instance, Lodhia (2003) reveals that though social awareness is currently increasing among accountants, both environmental management accounting and environmental reporting are minimally practiced. The corporate accountants' accounting skills are not employed in the environmental management strategies. In addition, their involvement in the firm's green practices is insignificant. The firm's environmental management team members in turn, are unaware of the corporate accountants' potential contribution by means of environmental management accounting as well as environmental reporting. Similarly, an earlier study by Wycherley (1997) highlighted that environmental managers are not fully aware of the potential assistance mainly in cost saving activities which the accountants might be able to provide. In addition, some of the managers observed their financial colleagues as uncooperative and unwilling to change.

Burns and Scapens (2000) investigated on the changing nature of management accounting in UK manufacturing companies. The study highlighted that there is a decreasing number of people involved in the accounting function between the years 1990-1997. In addition, there is a changing role of management accountants due to the emergence of "hybrid" accountants – employees of the corporation who have both the accounting knowledge and an in-depth understanding of the business operation or commercial processes. The study also indicated some possible reasons for increasing reliance towards individual managers and production personnel. Firstly, modern database systems are making information widely dispersed and enabling them to be analyzed in various ways. Individual managers have greater responsibility over information pertaining to their area of activity. Even the accountants use the information provided and stored in the database by the individual managers and production personnel to produce both financial and management

accounting reports. Secondly, this technological development is causing decentering of accounting knowledge where information such as budgets, variances, and actuals are available at various levels of the organizations. Even the responsibility for cost management has shifted to the managers and department heads. Thirdly, greater emphasis on forecasts rather than budgeting requires considerable inputs from individual departments and functions causing less reliance towards accountants. Burns and Scapens (2000) also concludes the need for management accountants to have a broad understanding of the business and its operations as companies now are more strategically focused, leading to the use of a range of key performance indicators that are not restricted to only financial performance measures.

The current evidence provided by extant literature is mostly based on studies not conducted within the local scenario. Hence little is known on the corporate accountants' involvement in Malaysia, particularly within the automotive industry. Thus, the following research question is being addressed:

What is the involvement of corporate accountants in the deployment of corporate environmental governance (CEG) at the case firm in terms of environmental management accounting, environmental reporting and corporate environmental team?

3. Research Methodology

This study adopts a qualitative methodology to address the research question identified in the previous section. According to Yin (2009), a single case study approach permits capturing unique or extreme circumstances and conditions of a special case. A single case study acts as a revelatory case where few had previously sought the opportunity to observe and analyze. Therefore, considering the early stage of CEG research within the Malaysian context, a qualitative exploration of the research topic by using a single case study is thus perceived as appropriate for this study.

3.1 Data collection

For the purpose of this study, one case firm in the Malaysian automotive industry was selected based on the following criteria: 1) environmentally concerned manufacturing company; 2) operating in the Malaysian automotive industry; 3) national car maker in Malaysia. The case firm is regarded as an environmentally concerned manufacturing company due to its ISO 14001 certification and the existence of Environmental, Health and Safety (EHS) division within the company.

In getting access to the case firm, direct contacts between the researcher and the company were done. An extensive review of the CEG literature surrounding the research question was undertaken prior to the interview questions development. According to Masanet-Llodra (2006) and Yin (2009), interview is an essential source of information for case studies. Thus, focused interviews (Yin, 2009) were conducted using a semi-structured interview approach. An interview protocol was developed as a guideline for consistency as well as cross-referencing. This study attempts to gain insights into preparedness of practicing accountants of the case firm to handle environmental issues. It is also the purpose of the study to investigate the perceptions of the case

firm's environmental champions, the senior management, and head of departments on the potential assistance they might gain from the accountants with respect to CEG. Thus, key informants includes the manager of financial accounting, Accounts executive, executives of Environmental, Health and Safety (EHS) Department, the general manager, and head of departments related to the firm's operational supply chain. Consistent with Setthasakko (2009), during the interviews, questions were asked, and where necessary, probing was done and elaboration was required. The whole data collection process involved recording of the interview sessions which was later transcribed by the researcher. The purpose of the interview was explained to the respondents in order to ensure that they were at ease. However, to avoid bias responses from the respondents, the objective of the study was not revealed.

Following Masanet-Llodra (2006) and Yin (2009), archival records were deemed appropriate mainly to validate and strengthen evidence from the interviews conducted. However, the interpretation of archival records was done with care since most were prepared for a specific audience and a specific purpose (Masanet-Llodra, 2006; Yin, 2009).The scope of this study is on the involvement of corporate accountants in the deployment of CEG within the case firm's boundary.

4. Findings

4.1 Profile of case firm

The case firm (hereafter referred to as Company A) under study is a local car manufacturing and assembling plant wholly owned by the parent company (hereafter referred to as X Holdings). This RM1.8 billion state-of-the-art manufacturing facility is situated in the northern state of Perak, Malaysia.

Manufacturing and assembly of cars (personal vehicles) are the key business activity of the case firm. This is handled by the manufacturing facility's five main departments within its operational supply chain: Engine & Transmission (ETM); Stamping; Body Assembly; Painting; and, Trim & Final Assembly.

Designed for production and supply-delivery efficiencies, Company A is equipped with an Automatic Line Control (ALC) or error-proof system that assists workers to improve built up quality and production efficiency. The manufacturing facility consists of 40% man-power and 60% automation. The infrastructure is intelligently designed as it uses high-precision robotics to ensure perfect production quality. Combined with smart systems, repetitive and heavy manual labor is reduced. Hence, the resultant effect such as overtiredness among workers and any inefficiency due to human error may also be minimised. The plant is capable of producing multi-model products on a common line thus permitting greater production flexibility. Each line can assemble vehicles on three different platforms. The plant is both ISO 9001 and ISO 14001 certified. It was built with worker friendly features aimed for a more conducive, comfortable and safe working environment.

As a car manufacturing and assembly company in Malaysia, Company A is categorized as "Business to Consumers" (B2C) in its Supply Chain (SC).

4.2 Corporate accountants' involvement in CEG

The discussions of findings in this section will firstly focus on the perception and involvement of accountants in the CEG at the case firm. The discussion will then continue with the perceptions of the case firm's management personnel on the involvement of accountants in the deployment of CEG.

4.2.1 Perception and involvement of accountants

The corporate accountants interviewed agreed that the operation of the company provide impact on the environment. They also believed that there is a win-win situation for both the firm and the environment if the company behaves responsibly towards the environment by implementing CEG. To say the least, the company will enjoy the benefit of cost reduction while at the same time, providing the natural eco-system with minimal adverse impact. In addition, as affirmed by the Manager of Financial Accounting, Group Finance, environmental responsible-ness is also essential for the sustainability of the case firm:

"First of all, X Holdings has to comply with the DOE...because we have a lot of sludge, hazardous materials, schedule waste..As far as i know, X Holdings comply because we also have ISO. The reason are two – 1: cost down..issue on environment..we have to do in accordance to the law. If not, the fine is high., not including 2 years imprisonment – the MD(Managing Director)!..Company A embark into ISO 14001..because it is a state-of-the- art (plant)..It is good for the firm to get the certification so as it can present to the global market as a true world class assembler".

The Manager of Financial Accounting, Group Finance also assured that the company is managing the environment responsibly by having an Environmental, Health and Safety policy in place and considering the environment upon running the firm's operation. For instance, at the ETM Department of Company A, all the machines are covered in boxes. Debris generated from the machines will be gathered by trained workers to handle waste. Any remaining waste will drop to the conveyors at the basement and transferred to a bailer machine. Similarly, the Stamping Department of Company A has an oil pit as a collecting sump and underground conveyors to transfer metal waste from stamping lines to a bailer machine. The bailer machine will turn scrap metals into cubes by compressing them. The cube metals will then be sold to specialized licensed contractors. However, corporate accountants of the case firm are not involved in the CEG implemented by the company. Environmental accounting (EA) – environmental management accounting (EMA) and environmental reporting (ER) are not being practiced by the corporate accountants of the case firm. As affirmed by the Financial Accounting Manager:

"Yes, i would say so [EA – EMA and ER are not practiced]. So, maybe when FRS says mandatory, we need to have it...Even though FRS is thick, there's no mention about environment....At the moment we are thinking about FRS 136 which we need to adopt. Even our FRS 139- Financial Instruments (FI) are upside down – need to adopt this year. And that involves massive structure...So, meaning..there's a lot of things to pick-up. This is our challenge..Here the adoption is quite slow. But, when adopting, there's changes. A lot of things need to be done to

accommodate the changes. Even the Charts of Accounts needed to be changed and even that can be very messy. … even FRS 139 can be so complex. Because our FI is too many. Similar to this one [EA]. Please do not make it mandatory!..Talking about environment itself, the company follows. But accounting, we need to start one by one. We don't want "yang dikejar tak dapat, yang dikendong berciciran"."

The corporate accountants are not key players in the CEG of the case firm. They are not involved in the environmental management strategies of the company since they are not part of the Environmental Committee team. Nevertheless upon request, the corporate accountants do make contributions towards green initiatives. However their contributions is only minimal as they only provide advices on capital investments, benefit analysis as well as impact analysis on environmental initiatives projects by the EHS or any departments.

The corporate accountants also perceived that the environmental management system and the accounting system are totally separated and different from each other. The reporting produced by them is purely financial. Meanwhile any environmental reporting is done by the EHS Department.

In order to verify the information provided by the accountants, further investigations were conducted with the case firm's non-accounting personnel. The following section will elaborate on the perceptions of the case firm's management personnel on the role of accountants in the deployment of CEG.

4.2.2 Perception of management personnel

Similar to the perceptions of their financial colleagues, the management personnel at the case firm are unaware of the potential contribution which the accountants can provide in CEG deployment.

According to those interviewed, accountants are not involved with the CEG deployment at the case firm. Interviews with the management personnel in turn, confirms the evidence obtained from the interviews of the case firm's corporate accountants. Corporate accountants are not involved with the greening activities conducted within the case firm. Also, similar to their financial colleagues, the management personnel of the case firm are unaware of the potential assistance that corporate accountants might offer by means of environmental management accounting and environmental reporting. The management personnel have little awareness of their financial colleague's potential help especially on cost saving activities as well as on environmental management strategies.

The evidence also highlighted that the engineers as individual managers and production personnel play higher responsibility for information concerning to their areas of activity. These managers and head of departments are handling the cost management, not the corporate accountants. Thus, reliance on corporate accountants is lesser. The involvement of corporate accountants in CEG is minimized to being a "verifier" and a monitoring body. As asserted by the

General Manager of the case firm:

"...do we need an accountant or an engineer? Because engineer nowadays, if you can give them the cost, then by using Excell they can calculate the ROI and the rest. For us, the Project Engineer has to come up with the ROI and the rest. So, i don't know. If the word "accountant" is just to look at ROI, ROE..for (our) case, the engineers will do it. Accountants just verify..how you get all these..are correct. The engineers must prepare everything...Accountants just check, verify. Because technically, they don't know..."

The HOD of ETM Department added to this issue by stating that the corporate accountants have very limited functions. Their financial colleagues only monitor both the operational expenditure (OPEX) and the capital expenditure (CAPEX) budget of the department.

In addition, due to the lack of understanding on green manufacturing processes and needs, the managers also perceived the accountants as less helpful in the deployment of CEG initiatives. For example, the HOD of ETM Department states that justification on the cost and the legal implications of the green initiatives must be given to their financial colleagues before the required assistance such as budget approvals are provided. This is due to the lack of technical knowledge or an in-depth understanding of the production processes among the case firm's corporate accountants.

5. Conclusion

Contrary to the literature both within the wider management accounting context (Sulaiman, Ramli, & Mitchell, 2008; Ramli, Zainuddin, Sulaiman, & Muda, 2013) and within the EMA context (Jasch, 2006; Sulaiman & Nik Ahmad, 2006; Schaltegger et al., 2017), the CEG deployment at the case firm is not associated with a significant involvement of accountants. This thus indicates a large gap between theory and practice, particularly within the Malaysian scenario.

Even though the accounting profession recognizes environmental accounting as an essential component for a successful business strategy (e.g., IMA, 1996; IFAC, 2005; CIMA, 2015), the findings of this study conforms to the findings of previous works (Wycherley, 1997; Lodhia, 2003; Yakhou & Dorweiler, 2004; Jalaludin et al., 2011) – the deployment of CEG is accompanied by limited involvement of accountants with regards to the adoption of MA technology and their personal involvement. In addition, the corporate annual reporting produced by the corporate accountants is purely on finance. The corporate accountants are not involved in any environmental reporting which is done by the Environmental, Health & Safety Department's personnel.

Within the systemic (holistic) perspective, a firm and its sub-system should act as a whole system to successfully address environmental issues (Nunes & Bennet, 2010). Hence, the current limited role of accountants as evidenced in this study, signals for a more significant involvement.

6. Significance of Study

The study serves as a starting-point for more research in the area of the involvement of corporate accountants particularly in the adoption of MA technology, environmental reporting and personal involvement of the accountants in CEG within the Malaysian automotive industry. This will not only contribute to the advancement of the body of knowledge, but also as guidance to practitioners.

7. Scope and Limitation

This study and its findings are still relatively exploratory, focusing on the corporate accountants' involvement in CEG by a car manufacturing and assembly company within the Malaysian automotive industry. Hence, the findings are not conclusive due to a single case firm selected. The results therefore, could not be generalize to the whole industry. A multiple case study within the industry or a more broadly-based study involving manufacturing companies across industries in Malaysia may provide a better picture of the local experience on the involvement of corporate accountants in CEG.

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