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STAND YOUR GROUND: THEORIES APPLIED AND THEIR INFLUENCE ON CORPORATE WATER PERFORMANCE

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Abstract

This paper aims to present the current theories employed in corporate sustainability, specifically the research on corporate water performance. Standing on the ground from a managerial perspective facilitates companies' commitment to corporate water performance. The theories include stakeholder theory, agency theory, resource-based view theory, legitimacy theory, self-regulation theory, institutional theory, and resilience theory. This paper reviews the theories' contributions to corporate water performance based on an interpretative perspective. As a result, the theories applied to these topics appear to be linked. The discussion highlights the organizations' or corporations' behaviour towards achieving water sustainability. The diversity of stakeholders' interests, agency and principal aims, resource availability, securing legitimacy, institutional influences, and resilient approaches show impact on corporate water performance. Each theory contributes in its own way to water related goals. This paper is not without its limitations. The theories discussed were only those frequently applied in the water sustainability area. Future research may look into other related theories for achieving water-related Sustainable Development Goals (SDGs).

Keywords: Corporate water performance, corporate sustainability, stakeholders, institutional, resilience

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1. Introduction

The UN 2030 Agenda and the dedicated 17 Sustainable Development Goals (SDGs) are extensive targets and aspirations for institutions to embed related challenging principles and policies in achieving global sustainability. As corporations with sustainability goals, the governance mechanisms, policies, and planning need to be strategized and thus engage stakeholders towards SDGs. Yet, the corporate sector is still making only little headway in its efforts to create a more sustainable environment (Van der Waal and Thijssens, 2020). Earlier, the UN Global Compact (UNGC, 2010) stated that over 7,700 corporations in 130 countries have signed the UN Global Compact, demonstrating the corporate sector's rising interest in sustainability. However, recently, a survey shows that 72% of firms indicate SDGs in their publicly available publications, but merely 20% firms prepared quantifiable aims related to attaining the goals, yet only 1% are reporting quantitative measures to demonstrate their improvement towards targets (PricewaterhouseCoopers [PwC], 2019). The slow progress may be caused by the implementation difficulties in embedding sustainable principles into companies' systems. This may be due to multi-dimensional and complex issues (Langer & Schön, 2003), linked with different methodological difficulties (Khaled et al., 2021), range of gauges, availability of data, and analysis of the outcomes (Lior et al., 2018).

Complexities have made the business environment more challenging today, and how firms handle these ambiguities determines whether they can survive (Kantabutra & Ketprapakorn, 2020). As a result, scholars around the world have looked for other strategies in managing an organisation in such a complicated world. Previous studies have found numerous motivation for corporation participate in sustainable performance (Artiach et al., 2010; Khaled et al., 2021; Manninen & Huiskonen, 2022; Morais & Silvestre, 2018). Corporate executives and their employees are taking voluntary initiatives to support sustainability as a result of their growing awareness of their broader roles and responsibilities (Fergus & Rowney, 2005; Lozano et al., 2015). Some studies explained the factors affecting corporate sustainability (Manninen & Huiskonen, 2022; Yu & Zhu, 2022), and other strand of research explained sustainability theories for companies (Kantabutra & Ketprapakorn, 2020; Lozano et al., 2015). These trend were observed also related to corporate water sustainability as researchers aim to comprehend the initiative and commitment of companies towards SDGs. However, corporate water sustainability is a far-reaching concept which argued by UN (2020, p. 108) as “it goes beyond conventional corporate social responsibility, addressing water withdrawal and allocation as more important issues than simple replenishment, which tends to preserve the business status quo”.

This paper is organised as follows. First, this paper presents the concept of corporate sustainability and corporate water performance. Second, this paper explains the theory development and a review of most commonly applied theories in corporate sustainability setting. Third, the discussion of the authors’ insight of the theories influence on corporate sustainability and specifically corporate water performance. Finally, the conclusion and summary for this paper.

2. Corporate Sustainability Performance

Corporate sustainability performance is the extent to which environmental protection plans and procedures are implemented (Algarni et al., 2022). It shows companies’ commitment to environmental

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development goals. Through corporate sustainability and cleaner practises, companies must prevent and reduce their environmental impact (Manrique & Martí-Ballester, 2017). However, corporate sustainability performance is not limited to environmental scope. Likewise, corporate sustainability performance measures how well a corporation incorporates components of social efficiency, environmental protection, economic growth, and governance into its managements and, ultimately, how these factors affect the company and public (Artiach et al., 2010). These four components are observed to develop the group of focus in literature. In other words, corporate sustainability has been recommended as a basis to tackle the full range of challenges in sustainability (Lozano et al., 2015), thus measuring the effect on SDGs related to corporate sustainability performance is one technique to evaluate businesses' progress towards attaining the SDGs (Khaled et al., 2021). As a result, while corporate sustainability performance is important for achieving SDGs, corporations also require good governance by integrating social, environmental, and economic elements to accelerate their progress.

Corporate sustainability is defined as"... meeting the needs of a firm's direct and indirect stakeholders, such as shareholders, employees, clients, pressure groups, and communities, without compromising its ability to meet the needs of future stakeholders as well" (Dyllick & Hockerts, 2002, p. 131). Ensuring stakeholders' participation and engagement to fulfil current and future needs could be achieved through setting up common interests among stakeholders. Diversity of interests leads towards different paths taken by them to achieve their own targets. Thus, there is a need to have appropriate frameworks established to achieve our ultimate aim, which is the sustainable development goals. Meanwhile, Searcy and Elkhawas (2012) emphasise that companies should define and measure their corporate sustainability performance to create value. Recognising the value of sustainability effort will improve stakeholders' engagement. An array of frameworks have been offered to observe the level of corporate sustainability performance (Nikolaou et al., 2019). The level of progress for companies can be classified and measured in certain ways. Previous studies recommended corporate contribution to sustainability performance using financial terms (Atkinson, 2000), non-financial terms (Ilinitch et al., 1998), or a combination of both financial and non-financial terms (Carroll & Shabana, 2010).

The frameworks classified based on their important points. In general, as stated the four components of focus above, there are frameworks emphasise on (1) corporate environmental performance (Yu et al., 2022), (2) corporate social performance (Cabral & Sasidharan, 2021), (3) corporate financial performance (Adams et al., 2022; OECD, 2021), and (4) corporate environmental, social and governance performance (Ortas et al., 2015), which also termed as corporate governance performance (Yoo & Managi, 2022). In addition, other researchers also contributed corporate sustainability performance studies by focusing on eco-efficiency performance (Li et al., 2017; Nikolaou & Matrakoukas, 2016) and triple bottom line performance (Burki et al., 2018; Tjahjadi et al., 2021). The strand of research also are not limited to firm level and climate change performance (Yu et al., 2016), carbon performance (Qian & Schaltegger, 2017), water performance (Gilsbach et al., 2022; Northey et al., 2016), and biodiversity performance (Haque & Jones, 2020). This paper limits the context of studying the theories and their contributions to corporate water performance.

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3. Corporate Water Performance

Companies must measure and monitor their water footprints in operations and supply chains, certify cities for water performance, adhere to water footprint assessment standards, disclose corporate water performance, label products, and vigorously participate with (basin) communities (Schyns et al., 2022). These actions are implemented to provide high commitment to effective corporate water performance in realising water-related sustainable development goals. Lambooy (2011) determines corporate water performance grounded on five themes: water risk assessment, direct operations, supply chain, accounting, and stakeholder engagement. In an early study, findings of the CERES (2010) revealed that corporate water performance and risk disclosure were disappointingly poor, even for companies operating in industries and geographical areas with high water risk. More recently, CDP (2018) stated that the world is not on track fulfil its commitment to providing everyone with access to sustainable water management, or the SDG6. Similarly, one major criticism is that "SDG6—the world is off-track" despite the topic of water sustainability not being adequately represented (UN, 2021). Hence, corporations should take initiatives and strategize towards higher corporate water performance, as companies may demonstrate leadership by setting advanced standards in water commitment, generating impact by contributing to the realisation of SDGs, investing in more productive employees, and strengthening their social licence or legitimacy to operate.

Several firm theories have been established to describe how companies operate. There have, however, been few discussions regarding the connections between corporate water performance and the company's principles. Thus, the topic of how different factors contribute to the difference in corporate water performance arises. By conducting a study that recognises several firm-specific frameworks that might affect an institution's commitment to the SDGs, we hope to contribute to the literatures on the theories related to corporate water performance.

4. Theory Development

Theories of business organisations address issues like: why do businesses exist? what elements affect the firm's size, scope, and function and its directors? what are the aims or ultimate goals of the firm in order to sustain them? Theories offer a framework for companies to work towards their objectives. The absence of a comprehensive theory in the field of corporate sustainability (Bansal & Gao, 2006) is extremely challenging because researchers in any area demand a comprehensive theory to understand, explain, and predict actions, events, and/or situations, as well as to challenge and advance the body of existing knowledge (Kantabutra & Ketprapakorn, 2020). According to Seth and Thomas (1994), theories of the firm offer various frameworks and perspectives for thinking about organisational goals and analysing significant research issues. Each theory is made up of a network of concepts and presumptions that are logically consistent and relate to both the goals of the firm and the behaviour and motivation of managers (Lozano et al., 2015).

The following section will discuss a few firm-related theories that have been employed in water-sustainability studies. The presented theories do not generalise the state and condition of companies globally, as there might be other relevant theories which could explain corporate water performance based

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on other conditions. Thus, given the limited scope, the authors of this paper provided an indication to enable further understanding and subsequent analysis of water sustainability commitment by companies.

4.1. Stakeholder theory

Company management is expected to report activities to the stakeholders. These stakeholders are divided into two categories based on their rights, claims, and interests (Clarkson, 1995). The two stakeholders are primary stakeholders, or the key stakeholders, on whom the company depends, and secondary stakeholders, in which the groups are not involved in transactions. Meanwhile, Freeman (1984) divided the categories of stakeholders into internal and external. Internal stakeholders include employees and the management, while external stakeholders are customers, environmentalists, suppliers, the government, and others (Freeman, 1984). Although debates were raised about which group should receive priority, Mitchell et al. (1997) suggested a technique to identify groups of stakeholders according to these characteristics: legitimacy, urgency, and power. The stakeholder theory claims that companies are expected to attend to powerful stakeholders instead of the less powerful ones, the matters of debtholders rather than the community. Thus, companies with higher obligation are expected to pay less interest to sustainability actions (Artiach et al., 2010).

The authors' of this paper explain that for corporate water performance to be efficient, there is a need for stakeholders' engagement and participation. Additionally, the stakeholder theory reveals that when companies face information disclosure demands from various stakeholders, disclosing information enables companies to create a good social impression (Zhou et al., 2021). Stakeholders should have common interests and relevant water information to enable smooth decision-making. According to stakeholder theory, managers are responsible for meeting stakeholder demands, including those for corporate water information (Wicaksono & Setiawan, 2022). As stakeholders are divided into a few groups, the challenges remain for companies and related parties to deal with the issues. To stimulate internal stakeholders in achieving water sustainability, external stakeholders such as the government can play a key role in ensuring the realisation of SDGs by stipulating water-related rules and policies.

4.2. Agency theory

The Agency Theory emphasises agency relations between the principal(s) and agent(s) in engaging and transferring power, with the agent performing a service on behalf of the principal(s). These forms of interactions are common in companies that are publicly traded (Jensen & Meckling, 1976). The Agency Theory can be criticised in particular for the following reasons: the agent does not constantly behave in the principal's best interest; there might be diverse demands that are incompatible between the principal and the agent, such as issues with ownership and governance (Jensen & Meckling, 1976). Additionally, because of a lack of technical or organisational understanding, the agent may overlook potential synergies between or among the clients in favour of short-term gains while disregarding the possibility of better, more attractive future contracts (Lozano et al., 2015).

The authors' of this paper understanding and interpretation of this theory is that companies have agents to act in accordance with their principals' interests, but the way might not be as expected as it may vary according to other issues like governance matters. The nature of the interest, either short-term or long-

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term, is also an indicator of whether an agent can perform services on behalf of the principals. An agent might overlook future development goals for short-term benefits or rewards. Also, based on agency theory, we are able to understand corporate water performance behaviour. To prevent conflicts between agents and to fulfil shareholders' demands, managers might disclose or disclose selective water information, which subsequently affects the degree of information asymmetry (Zhou et al., 2018). Additionally, applying agency theory to water and sanitation services, corporations like private firms design contracts that offer incentives to managers to decide the strategy that maximises returns consistent with the firm's objectives (Barbosa & Brusca, 2015).

4.3. Resource based view theory

Resources should facilitate a company's strategy to hold the significance of those resources (Barney, 1991). The resource-based view theory concentrates on capabilities and resources to clarify the exceptional performance of some companies to attain a competitive advantage, but it was deemed limited as it does not integrate the external setting (da Cunha Bezerra et al., 2020). Penrose (1959) classified resources as tangible and human. Tangible resources include land, plant equipment, natural resources, waste and finished goods. Meanwhile, human resources include unskilled and skilled workers; administrative, financial, legal, managerial, and technical. Later, intangible resources were added by Sanchez and Heene (1997), which included capabilities (know-how) and cognitions (intellects). Likewise, Clulow et al. (2007) highlighted important resources which were identified as capabilities (skills and knowledge) and intangible assets (client trust and relationships). Resource-based view theory acts as a lens to investigate tangible and intangible resources to explain corporate sustainability. Literature in the field of corporate sustainability grounded by this theory has been employed in corporate sustainability strategies (Lo and Liao, 2021) and sustainability performance (Le, 2022).

The authors of this paper understand that a resource-based view is based on the resources of a company in their pursuit of SDGs. This theory can explain the behaviour of a company in terms of water sustainability. Weber and Saunders-Hogberg (2018) clarified resource-based view theory in water management and corporate social performance in the food and beverage industry. Linking good management theory and a resource-based view, these authors stated that water risks are core business risks focused on by good management practise leadership in corporate sustainability. Management, board of directors, and sustainability expertise (intangible resources) provide guidance for employees (human resources) towards corporate water performance (tangible resources). The degree of awareness and importance of natural resources like water reserves placed in the company impacts their operations. This is much relate to the internal governance mechanisms and strategic management of companies. Less tangible and intangible resources, along with management and sustainability inexperience, appear to favour more formal external governance mechanisms (Formentini & Taticchi, 2016).

4.4. Legitimacy theory

In accordance with the legitimacy theory, the legitimacy of a corporation will be jeopardised if its actual behaviour differs from the societal values in its community (Zhou et al., 2021). Thus, companies will demonstrate higher corporate sustainability performance to mitigate this threat. The legitimacy theory has

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been used for a long time to explain why businesses report on their environmental and social performance (Deegan et al., 2002) and is still used today (Deegan, 2019). As defined by Suchman (1995, p. 574), legitimacy is "a generalised perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions." According to Deegan et al. (2002), legitimacy theory postulates that organisations strive to perform, or at least appear to perform, within the confines and standards of the people in which they operate. According to Lindblom (1994), there are four basic ways for organisations to establish legitimacy. To impose their intentions, they must educate their stakeholders. Second, they change stakeholders' impressions of them without changing their real performance. Thirdly, they divert attention away from the cause of their negative effects, and finally, they aim to deviate from the expectations of others.

The authors of this paper understand and interpret the legitimacy theory used in corporate water performance research. According to Liu et al. (2021), the results of their study show that disclosure of water information facilitates the quality of financial reporting, provides motivation for companies to publish water information, and provides information reliability. The authors found that companies with lower quality of financial reporting provide more sustainability information for corporate legitimacy to replace the lack of high-quality financial information (Liu et al., 2021). In a situation where companies face rules and regulations, for corporations that regard regulations and policies as a challenge to their legitimacy, such policies will represent a kind of pressure and a motivation to increase disclosure (Zhou et al., 2021). Therefore, in a society that is concerned about water sustainability, such as preventing water pollution, reducing water withdrawals, and recycling water use in operations, this will impose some sort of pressure on companies to be seen as legitimate in the community. Although water sustainability actions may affect the expenditure of companies, or in situations where companies are facing an unfavourable effect on financial performance, companies may still continue to support water goals as they are motivated and pressured to secure legitimacy.

4.5. Self-regulation theory

"SDGs are not a mandatory legal framework but more of an instrument of self-regulation and guidance" (Seele, 2017, p. 677). Nielsen (2017) stated that according to self-regulation theory, individuals' behaviour is a result of goal-striving and goal-setting. Goals may differ depending on the priorities established by individuals, organizations, or industries. In addition, Lyon and Maxwell (2003) argued that regulators might inadvertently obtain publicly favourable corporate self-regulation. Self-regulation signifies an individual's perspective to avoid an instant reaction and to retain a lasting assessment (Hagger et al., 2010). Thus, Mead et al. (2009) stated that a self-regulating individual would respect social responsibility and sustain socially desired tolerance. From a firms' perspective, in cases like voluntary agreement, it may depict self-regulatory activities in which firms introduce a community assurance to enhance environmental performance (Lyon & Maxwell, 2003). A high-self-regulation individual sustains long-term consideration, thus facilitating significant decisions and attitudes in workplaces (Abrams & Brown, 1989), creating team members with different degrees of commitment caused by diverse self-regulation strategies (Lin, 2015), and developing a firm that recognises social and environmental performance.

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The authors of this paper understand and interpret that the self-regulation theory is able to act as a basis to facilitate companies' initiative and commitment towards water sustainability. Zhang et al. (2021) stated that firms are encouraged by a need to prevent the authorities from stepping in to initiate strict policies on water use. They constructed an index of self-regulation measuring these four elements: water governance, water policy, water actions, including water performance evaluation. The outcomes of their investigation show that firms with higher self-regulation tend to disclose more water information. In the absence of any national water policies in a country, self-regulation is important as companies would take further actions to achieve water goals. Companies might strengthen their internal governance mechanisms, such as developing water-related policies and providing rewards for achieving water performance. Instead of contradicting each other, the government may facilitate this effort by providing incentives or tax relief to companies that align with sustainable agendas, particularly the SDGs related to water.

4.6. Institutional theory

Institutional theory explains that factors outside of an organization's control are often more powerful than market forces, which could have a considerable impact on how formal organisational structures develop (Ebrahimi & Koh, 2021). According to the institutional theory, firms' adoption of sustainable practises is influenced by rising institutional demands and pressures (Pistoni & Songini, 2013). The institutional theory illustrates how businesses eventually resemble one another and examines how certain behaviours become acceptable norms that are then established in organisations (Scott, 1987). It is concerned with the more complex aspects of social structure that reflect the influence of imposing norms, rules, and routines on an organisation (Kauppi, 2013). Thus, it is crucial to comprehend how institutional pressures grounded in institutional theory can be used to shape policies at the corporate, governmental, and industrial levels and to impose limitations on the life-cycle perspective on sustainability (Ebrahimi & Koh, 2021). Formal institutions such as political, judicial, and economic rules and regulations and informal institutions such as culture (DiMaggio & Powell, 1983; North, 1990; Peng, Wang, & Jiang, 2008) have been examined in a strand of sustainability research, in which more focus has been given on formal rather than informal institutions with regards to sustainability (Miska et al., 2018; Peng et al., 2014).

The authors of this paper argue that several institutional initiatives from organisations like the Organisation for Economic Co-operation and Development (OECD), United Nations (UN), World Bank, and Global Water Intelligence provide support towards water sustainability that could be embedded in the operations of institutions and corporations. Ben-Amar and Chelli (2018) investigated formal and informal institutional effects on water disclosure. They found that the effect of informal institutions (i.e., culture) on water disclosure practises depends on the intensity of formal institutions (i.e., the legal system). Institutional theory provides a basis to understand the behaviour of corporate water performance. To achieve water sustainability, formal institutions might work for companies domiciled in some countries, while companies in other countries might respond differently to informal institutions. The institutional pressures affect the organisational and corporate behaviour, and corporations' response in their own way to mitigate climate change impact specifically on water security. Likewise, Christ (2014, p. 1) claimed that "regulatory pressure and corporate environmental strategy were found to be consistent drivers of water management accounting use".

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4.7. Resilience theory

In corporate sustainability research, the capability to endure interruption and environmental shocks is known as resilience (Kantabutra & Ketprapakorn, 2021). Resilience is defined as "the ability of systems (social or biophysical) to withstand or cope with risks, shocks, or stressors (be they climate change impacts, social crises, economic shocks, or catastrophic events) while continuing to maintain certain key functions or structures" (Rodina, 2019, p. 2). Corporations need to be resilient to adapt and mitigate risks to sustain themselves in this changing world. Arnold et al. (2017) argued that organisations must obtain a resilient attitude, which means the capability to grasp that external settings are varying and to realise, self-manage, and react promptly. Here, resilience in organisations is categorised into two capabilities. First, quickly react to environmental indications and second, obtain flexible resources to adapt in any situation. This theory offers important insights as to how organisations can provide anticipated sustainability performance despite the challenges of stress, difficulty, and other obstacles to survival.

The authors of this paper applied this basis to corporate water performance. In response to climate change, corporate adaptation and mitigation approaches are explained and translated into adaptable institutions in realising water sustainability. A higher degree of flexibility from organisations is needed to defeat unfavourable occurrences and thus ensure water quality and availability (Rodina, 2019). Additionally, Cooper (2020) stated that climate resilience and water management are crucial whereby the decision making leading towards water supply and storage solutions corresponds to a changing climate. The attributes of water management or water governance should be identified. Likewise, it is important to determine the characteristics of sustainable water governance and resilience and then how this improved water resource management can be implemented at the local level (Di Vaio et al., 2021). According to Di Vaio et al. (2021), increased stakeholder participation would improve decision making and joint strategies that encourage resilience to external occurrences and volatile events. Hence, a company with a resilient approach is able to adapt and mitigate climate change in response to water development goals.

5. Discussion

Theories related to companies, explaining their behaviour and responses, belong in the area of social sciences. Therefore, following Lozano et al. (2015), we utilised an explanatory approach to discover the contribution of these theories to corporate water performance. This paper aims to answer the following questions: (1) What are the effects of theories on corporate water performance? and (2) Are these theories appropriate to explain firms' behaviour in terms of corporate water performance?

We offered an explanation for current theories applied to corporate water performance, which might justify the company's behaviour towards realising water sustainability. Observing and comprehending the basis of the grounded theory presented in this paper, the need for internal and external governance mechanisms appeared to have a significant impact on attaining water goals. The management and directors could obtain an indication from the current theories and their contribution to corporate water performance. There is no one best solution that fits all, implying that the best framework from our perspective may not fit other conditions. Each theory does have its own way of understanding the business world and organisational behaviour to provide a solution for corporate water performance.

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6. Conclusion

The theories presented in this paper were selected due to the most discussed theories in corporate sustainability, in particular the concept of corporate water performance as the initiative in supporting SDGs. Companies can obtain insights to contribute to water sustainability. Other theories that are not covered in this paper could be investigated in future studies. Several studies on corporate sustainability and corporate water performance combined several theories to explain their findings (Khaled et al., 2021; Kücükgül et al., 2022). Thus, the need for an integrated theory may also be examined to understand a company's behaviour towards corporate water performance. In a nutshell, the theories presented indicate characteristics as follows: (1) diverse stakeholders groups may show different interests towards corporate water performance; (2) agents may or may not impart the principal's aims in the operation of the companies; (3) integrating resources like tangible, intangible, and human resources could realise water sustainability; (4) companies show commitment to water sustainability to signify legitimacy; (5) companies with higher self-regulation indicate higher commitment to water goals; (6) the form of institutions may place different importance on corporate water performance; and (7) resilient approaches by companies in tackling obstacles are crucial for climate change adaptation and mitigation in regards to corporate water performance. Future studies may consider other theories to be applied in corporate water performance research.

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