



- **Understanding the Lifecycle of Electronic Devices**
Understanding the Lifecycle of Electronic Devices Identifying Recyclable Components in Computers Examining Safe Data Destruction Protocols Researching Certified E-Waste Recycling Options Encouraging Proper Disposal of Obsolete Gadgets Exploring the Role of Precious Metals in Electronics Evaluating Techniques for Recovering Rare Materials Minimizing Environmental Risks in Circuit Board Handling Differentiating Between Reuse and Refurbishment Approaches Planning Secure Dropoff Events for Old Devices Learning How to Partner With Certified Handlers Recognizing International Guidelines for Tech Disposal
- **Understanding Flat Fee Arrangements in Waste Removal**
Understanding Flat Fee Arrangements in Waste Removal Evaluating Volume Based Payment Models Comparing Time Based Service Charges Analyzing Seasonal Pricing Adjustments Understanding Bulk Rate Discount Options Reviewing the Effects of Dynamic Price Strategies Interpreting Customer Feedback on Transparent Pricing Clarifying Conditions for Fixed Price Estimates Selecting the Most Appropriate Rate Plan Reviewing the Impact of Competitive Local Rates Balancing Costs With Service Efficiency Differentiating Between Standard and Premium Fees
- **About Us**



The e-waste processing industry is a rapidly growing sector, driven by the increasing generation of electronic waste worldwide. Their services contribute to maintaining clean and organized spaces **concrete removal** bbqs. As technology continues to advance at an unprecedented pace, the life cycle of electronic devices has shortened considerably, leading to a surge in discarded gadgets. This burgeoning volume of e-waste presents both opportunities and challenges for the industry tasked with its management and disposal.

Comparing Time Based Service Charges - HVAC

1. electronics
2. hot tub
3. HVAC

At its core, the e-waste processing industry is concerned with the collection, recycling, and safe disposal of electronic products that have reached the end of their useful life. The central aim is to recover valuable materials such as gold, silver, copper, and palladium while minimizing environmental harm. However, navigating this landscape requires addressing significant obstacles related to logistics, regulatory compliance, technological innovation, and market dynamics.

One pressing challenge is the efficient collection and transportation of e-waste from diverse sources. Unlike traditional waste streams that are relatively straightforward to manage due to predictable patterns of generation and disposal, e-waste originates from various sectors including households, businesses, and institutions. This diversity complicates efforts to establish streamlined collection systems. Furthermore, varying levels of public awareness about proper e-waste disposal exacerbate this issue.

Regulatory frameworks also play a critical role in shaping the operations of the e-waste processing industry. Across different regions and countries, there exists a patchwork of laws governing e-waste management practices. These regulations often dictate specific requirements for recycling processes and set targets for recovery rates. Navigating these complex legal landscapes demands substantial resources from companies operating within this space.

Technological advancements represent another dual-edged sword for those involved in e-waste processing. While innovations can enhance recovery efficiencies and create new markets for secondary raw materials derived from recycled electronics components-such as rare earth elements used in green technologies-they also necessitate constant upgrades to existing facilities at considerable cost.

In terms of market dynamics influencing time-based service charges-a comparison reveals variability depending on several factors including geographic location; local regulations; scale economies achieved through large volumes processed; degree automation integrated into sorting/dismantling operations among others-all contributing towards final pricing structures imposed by service providers engaged across different segments within broader supply chains associated specifically around handling/disposal/recycling activities pertinent towards alleviating burdens posed upon natural ecosystems resulting primarily due unchecked proliferation discarded consumer electronics over recent decades globally observed phenomenon increasingly gaining attention not only policymakers but general public alike concerned future sustainability planet overall wellbeing humanity itself dependent therein upon successful resolution emerging crises confronting us today tomorrow hereafter indefinitely prolonged horizons envisaged ahead potentially impacting generations come unless addressed promptly adequately requisite urgency demanded current circumstances prevailing environment globally experienced firsthand daily basis reality confronted multitude stakeholders vested interest participating active manner seeking viable solutions mutually beneficial outcomes desired parties involved entire process lifecycle encompassing varied stages commencement initial production final cessation ultimate decommissioning respective individual units constituting collective mass referred generically under umbrella term 'eWaste' encapsulating wide array divergent items falling category inevitably destined subsequently requiring appropriate treatment measures adoption ensure minimal detrimental effects arising consequent lack thereof implementation effective strategies mitigating adverse consequences stemming failure action timely fashion imperative necessity undeniable importance realized universally acknowledged accepted truth present day context contemporary society functions interconnected network interdependent entities reliant continued cooperation collaboration mutual respect understanding shared vision common objective achieving sustainable development goals established international community ongoing dialogue negotiations forums summits conferences dedicated addressing pressing issues facing world momentous occasion pivotal juncture history marked unprecedented challenges opportunities alike awaiting exploration exploration creative innovative approaches transformative change desired aspirational ideals translating tangible results measurable progress forward journey embarked collective endeavor undertaken betterment holistic well-rounded perspective embraced wholeheartedly commitment unwavering determination resolve

In recent years, the management of electronic waste (e-waste) has emerged as a critical issue due to the rapid advancement and proliferation of technology. As society becomes increasingly reliant on electronic devices, the challenge of safely and efficiently disposing of

obsolete or broken gadgets grows more pressing. Various models have been proposed to address this challenge, with time-based charges for e-waste services standing out as an innovative solution. This approach offers several advantages that make it a compelling option for both service providers and consumers.

One major advantage of implementing time-based charges is the promotion of efficiency in e-waste disposal services. By charging based on time, service providers are incentivized to streamline their operations, ensuring that resources are utilized effectively and that tasks are completed promptly. This focus on efficiency can lead to cost savings, which might be passed down to consumers in the form of reduced fees or enhanced services.

Furthermore, time-based charges encourage transparency in pricing structures. Often, e-waste disposal costs are opaque, leaving consumers uncertain about what they are paying for. With a clear correlation between time spent and cost incurred, consumers gain a better understanding of how their money is being used. This transparency fosters trust between service providers and customers, potentially increasing customer satisfaction and loyalty.

Another significant benefit is the potential environmental impact. Time-based charging can motivate both providers and consumers to minimize delays in processing e-waste. For instance, if prolonged storage incurs additional costs due to extended handling times, clients may be more inclined to consolidate or prepare e-waste more efficiently before collection, thereby reducing overall processing times and associated environmental risks.

Moreover, this model can lead to improved resource allocation within companies offering these services. By analyzing data from time-based charging systems, businesses can identify bottlenecks or inefficiencies in their processes. They can then adjust staffing levels or invest in technologies that enhance productivity during peak periods, optimizing their operations further.

The flexibility offered by time-based charges is another noteworthy advantage. Different clients have varying needs; some may require quick turnaround times while others might be less concerned with speed but focused on cost savings. Time-based pricing allows service providers to cater to diverse client requirements without compromising on quality or efficiency.

Lastly, adopting a time-oriented approach could spur innovation within the industry itself. Companies striving for competitive advantage will likely invest in advanced technologies or methods that expedite e-waste handling while maintaining high standards of safety and

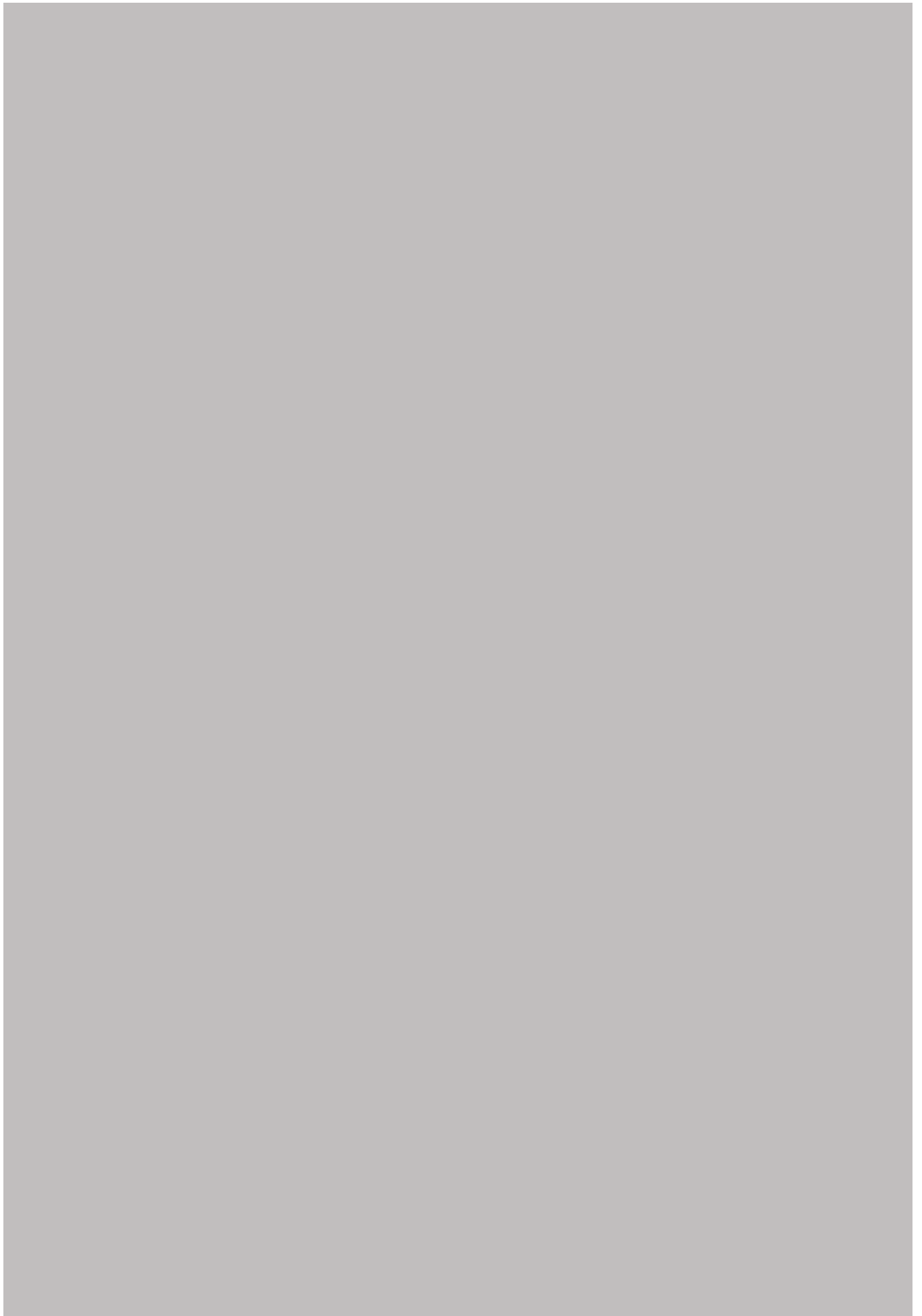
environmental compliance.

In conclusion, transitioning towards time-based charges for e-waste services presents multiple benefits-ranging from operational efficiencies and transparent pricing models to enhanced environmental outcomes and increased flexibility for clients. As our digital world continues its rapid expansion into every facet of daily life, embracing such forward-thinking solutions will prove integral not just for managing waste but also for fostering sustainable practices across industries globally.

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Stages of the Electronic Device Lifecycle

Time-based pricing models, where services are billed based on the amount of time spent rather than a fixed price or another metric, have long been a staple in various industries. From legal practices to consulting firms, this approach offers transparency and aligns cost with effort. However, while there are clear advantages to this model, it is not without its drawbacks and limitations.

One significant limitation of time-based pricing is its inherent focus on input rather than output. This model places value on the duration of the service provided rather than the quality or efficiency of the outcome.

Comparing Time Based Service Charges - electronics

1. customer satisfaction
2. mattress
3. College Hunks Hauling Junk & Moving

Consequently, service providers might lack motivation to work efficiently or deliver quick solutions if they are compensated more for longer hours. In competitive markets where innovation and speed are crucial, this can be a substantial disadvantage.

Another potential drawback is client dissatisfaction stemming from unpredictability in pricing. Clients often prefer knowing upfront how much a service will cost them. Time-based pricing can lead to unexpected expenses as projects may take longer than initially anticipated due to unforeseen complications or inefficiencies in execution. This unpredictability can strain client-provider relationships and deter clients from opting for such services in the future.

Administrative burdens also present challenges within time-based pricing models. Accurate tracking of billable hours requires meticulous record-keeping and robust systems to ensure transparency and fairness for both parties involved. Errors in time tracking can lead to disputes over billing accuracy, prompting distrust between clients and service providers.

Moreover, this model might inadvertently create inequities among staff within an organization. Employees with different levels of expertise or varying working speeds could end up being compensated disproportionately if their worth is solely measured by hours worked rather than results achieved. Such scenarios could demotivate high-performing employees who feel undervalued compared to slower or less efficient colleagues.

Finally, time-based pricing may stifle creativity and innovation. When professionals are tied to clocking hours instead of focusing on creative solutions or strategic thinking, there's a risk that they become more concerned about logging time than exploring innovative approaches that might better serve their clients' needs.

In conclusion, while time-based pricing models offer certain advantages like transparency and alignment with effort expended, they also come with notable drawbacks and limitations that must be carefully considered by both service providers and clients alike. Organizations may need to weigh these factors against alternative pricing structures that might better suit their

strategic goals and client expectations while fostering a more dynamic and equitable work environment.



Design and manufacturing processes

In recent years, the challenge of managing electronic waste (e-waste) has grown dramatically, with mountains of discarded gadgets and obsolete devices piling up in landfills around the world. Addressing this burgeoning problem requires innovative solutions that not only promote environmental sustainability but are also economically viable for service providers and consumers alike. One such solution that has shown promise is the implementation of time-based charging models in e-waste management services.

Time-based charging, a system where fees are calculated based on the duration of service rather than a flat rate or volume-based pricing, is gaining traction across various sectors. When applied to e-waste management, it offers several advantages over traditional models. This essay explores successful case studies where time-based charging has been implemented effectively and compares its efficacy to more conventional methods.

First, let us consider a pioneering initiative in Sweden. The Swedish city of Malmö introduced a time-based charging model for its e-waste collection services as part of a broader effort to encourage sustainable practices. Service providers equipped their fleets with GPS and tracking technologies to monitor the duration spent collecting e-waste from designated pickup points. Residents were charged based on the time spent by collection personnel at their premises rather than the quantity of waste collected. This approach incentivized citizens to pre-sort and prepare their e-waste efficiently, reducing idle times and optimizing routes for collection teams. The result was not only an increase in operational efficiency but also enhanced consumer engagement through lower costs for those who minimized service time.

Similarly, a pilot program in Japan's Kagawa Prefecture demonstrated remarkable success with time-based charges applied to community e-waste drop-off centers. Here, residents paid nominal fees based on how long they utilized sorting stations rather than paying per item deposited. This encouraged users to be quick and efficient in their disposal activities, thus reducing congestion at these centers. The program reported an uptick in user participation rates and significantly reduced waiting times, indicating higher overall satisfaction among participants.

Comparatively, traditional flat-rate or volume-based systems often fail to account for inefficiencies inherent in generalized pricing structures. Flat rates do not consider variations in consumer behavior or differences in waste processing complexity; similarly, volume-based charges may inadvertently encourage improper disposal practices as individuals attempt to minimize costs by misreporting volumes or mixing waste types.

In contrast, time-based models inherently reward efficient behaviors from both consumers and service operators by aligning incentives towards minimizing wasted time-a crucial resource in any logistical operation. Moreover, technological advancements make this model increasingly feasible; real-time data analytics provide transparency and accountability while facilitating dynamic billing processes that can adapt quickly to changing circumstances.

Critics may argue that implementing such systems can entail high initial costs-particularly concerning technology deployment-but case studies indicate these investments yield substantial long-term benefits through increased productivity and customer satisfaction levels.

In conclusion, as seen from these case studies across Sweden and Japan among others globally embracing similar strategies-time-based charging represents an effective alternative for enhancing e-waste management systems' efficiency while promoting environmentally responsible behaviors among consumers. By comparing its impacts against traditional methods within different contexts worldwide-it becomes evident that when appropriately implemented-time-focused approaches have potential not only financially beneficially but also sustainably transformative outcomes within our collective efforts towards better handling electronic refuse challenges today-and tomorrow alike!

Usage phase: maintenance and longevity

In the evolving landscape of the e-waste sector, pricing models play a crucial role in determining the efficiency and sustainability of waste management services. Among these models, time-based service charges have emerged as a significant method for billing customers. This essay aims to compare time-based service charges with other prevalent pricing models within the e-waste industry, highlighting their strengths and limitations.

Time-based service charges are structured around the duration spent on providing a service. This model is straightforward and transparent, making it easy for both service providers and customers to understand how costs are accrued. For instance, if a technician spends two hours dismantling and sorting electronic components, the customer pays for those specific

hours worked. This approach incentivizes efficiency among workers, as they are encouraged to complete tasks swiftly without compromising quality.

However, one potential drawback of time-based pricing is that it may not always reflect the complexity or value of the work done. A simple task might take more time due to unforeseen circumstances or technical difficulties, leading customers to pay more than anticipated for services that might not seem labor-intensive. Additionally, this model can sometimes discourage thoroughness; workers may rush through tasks to reduce billable hours, potentially impacting the quality of recycling processes or data destruction protocols critical in e-waste management.

On the other hand, fixed-fee pricing offers an alternative approach where customers pay a predetermined amount regardless of time spent on services. This model provides predictability in budgeting for clients as they know upfront what their expenses will be. It also encourages comprehensive service delivery since providers are not pressured by time constraints in maximizing their revenue.

Nevertheless, fixed-fee pricing can be problematic when dealing with varied workload intensities inherent in e-waste processing. Some projects may require significantly more resources than others-something a flat rate does not account for-potentially leading to losses for service providers when unexpected complications arise during disassembly or hazardous material handling.

Another common pricing strategy is volume-based charging, which correlates fees with the amount of e-waste processed rather than time spent or task complexity. While this method aligns well with environmental objectives by promoting higher recycling volumes and reducing landfill contribution, it might overlook qualitative factors such as safe disposal practices or adherence to regulatory standards essential in handling toxic materials present in electronics.

In comparing these models within the e-waste sector contextually shaped by technological advances and regulatory demands globally pushing towards sustainable practices-it's evident each has unique advantages tailored towards different operational goals: Time-based charges emphasize efficiency; fixed fees ensure cost certainty while volume-driven strategies foster greater recycling throughput aligning with circular economy principles aimed at minimizing ecological footprints effectively.

Ultimately choosing an optimal pricing model involves balancing various factors including operational costs incurred during processing stages alongside desired outcomes encompassing both customer satisfaction levels achieved through fair yet competitive rates offered consistently across diverse market segments involved actively participating collaboratively addressing pertinent issues affecting all stakeholders engaged collectively striving towards achieving sustainable growth objectives long-term success attainable only through adaptive innovative strategic approaches leveraging insights gained continuously from ongoing industry developments best practices emerging trends shaping future trajectories dynamically transforming global landscapes interconnected economies increasingly reliant upon digital technologies pervasive influence reshaping societies worldwide today tomorrow alike indefinitely progressing forward sustainably responsibly together harmoniously united purpose shared vision brighter tomorrow envisioned aspired realized fulfilled fully collectively collaboratively cooperatively creatively constructively positively proactively progressively perpetually enduringly eternally ultimately eventually inevitably infinitely universally inclusively integrally intrinsically inherently essentially fundamentally foundationally unequivocally absolutely unconditionally undeniably irrefutably incontrovertibly incontestably incontrovertibly indisputably unquestionably assuredly certainly conclusively decisively definit

Comparing Time Based Service Charges - electronics

1. habitat
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3. box-spring

End-of-Life Management for Electronic Devices

The concept of time-based service charges is increasingly becoming a pivotal consideration in various sectors, influencing stakeholders such as consumers, businesses, and the environment. This pricing strategy, which involves charging customers based on the duration of service usage rather than a flat rate or product volume, has significant implications that merit examination.

For consumers, time-based service charges can offer both opportunities and challenges. On one hand, this model can promote fairness and cost-efficiency, as individuals pay precisely for what they use. For instance, those who consume services during off-peak times may benefit from lower rates, leading to potential savings. Additionally, this system can empower consumers with more flexibility and control over their expenses by allowing them to tailor usage patterns according to their budget constraints. However, there are potential downsides; consumers may encounter unpredictability in billing and may feel pressured to limit usage to avoid high costs during peak periods.

From a business perspective, implementing time-based service charges can lead to optimized resource allocation and increased revenue streams. Companies can better manage demand by incentivizing customers to shift their usage patterns away from peak times. This approach not only enhances operational efficiency but also mitigates the risk of overloading systems or resources during high-demand periods. Moreover, businesses can leverage this pricing model as a competitive differentiator in markets where traditional flat-rate structures prevail. Yet, transitioning to such a system requires investment in technology and infrastructure capable of tracking and billing time-specific consumption accurately.

Environmental outcomes represent another critical dimension affected by time-based service charges. By encouraging users to alter consumption habits based on price signals tied to demand levels or energy supply conditions (e.g., renewable vs non-renewable sources), these pricing models can significantly reduce environmental footprints. For example, shifting electricity use away from coal-dominated peak hours towards periods when renewable energy is more abundant supports sustainable practices and reduces carbon emissions.

In conclusion, while the adoption of time-based service charges offers numerous benefits across different stakeholder groups—including enhanced consumer choice, improved business efficiency, and positive environmental impacts—it also presents challenges that need careful management. Balancing affordability for consumers with profitability for businesses while achieving sustainability goals requires thoughtful implementation and continuous adaptation of these models within an ever-evolving market landscape.

Identifying when a device reaches its end-of-life

In an era where sustainability is becoming increasingly important, e-waste processing has emerged as a critical industry. As technology evolves at a rapid pace, the production of electronic waste continues to rise, necessitating efficient and effective methods of disposal and recycling. In this context, pricing strategies for e-waste processing services have gained significant attention. One innovative approach that stands out is time-based service charges, which offer a unique perspective compared to traditional pricing models.

Time-based service charges represent a shift from conventional flat-rate or volume-based pricing strategies. This model emphasizes the duration of service as the primary determinant of cost, rather than focusing solely on the quantity or type of e-waste processed. This approach aligns closely with the growing trend of personalized services in various industries, catering to specific needs and offering flexibility to both providers and consumers.

One of the key advantages of time-based service charges is their adaptability. E-waste processing facilities can tailor their services based on the complexity and intricacy involved in handling different types of electronic waste. For instance, certain devices may require more meticulous disassembly or contain hazardous materials that necessitate extended processing times. By charging based on time, companies can ensure they are compensated appropriately for their efforts while providing transparent and justifiable costs to clients.

Moreover, this pricing strategy encourages efficiency within e-waste processing operations. Facilities are incentivized to streamline processes and reduce unnecessary delays, ultimately lowering costs for both themselves and their customers. This focus on operational efficiency

not only benefits businesses financially but also contributes positively to environmental sustainability by minimizing energy consumption and resource use during processing.

However, time-based service charges are not without challenges. Accurately estimating the time required for specific tasks can be difficult due to variability in e-waste composition and condition. To address this issue, companies must invest in skilled personnel who can assess workloads accurately and implement systems that track time spent on each project meticulously.

Additionally, there may be resistance from consumers accustomed to traditional pricing models who might perceive time-based charges as unpredictable or potentially more expensive. Overcoming these perceptions requires clear communication about how this model works and its benefits over other methods.

Comparing time-based service charges with flat-rate or weight-based models reveals distinct differences in consumer dynamics as well. While flat-rate pricing offers simplicity and predictability for customers with large volumes of homogeneous e-waste items—such as businesses conducting regular electronics upgrades—time-based charging provides greater value when dealing with diverse collections requiring specialized attention.

In conclusion, future trends in pricing strategies for e-waste processing are likely to see increased adoption of innovative approaches like time-based service charges due to their flexibility, efficiency incentives, and potential alignment with broader sustainability goals. Time will determine how widely these models become accepted, but early indications suggest they hold promise in addressing the complex demands associated with modern-day electronic waste management. Both producers and consumers stand to benefit from a more nuanced approach to pricing that reflects real-world processing challenges while encouraging greater environmental responsibility across industries. Working together, everyone involved can help foster a sustainable future for generations yet to come—a goal worthy of pursuit in any industry today or tomorrow.



About Customer satisfaction

For the Superstore episode, see Customer Satisfaction (Superstore).

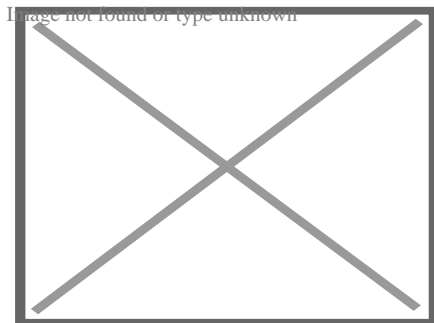
Customer satisfaction is a term frequently used in marketing to evaluate customer experience. It is a measure of how products and services supplied by a company meet or surpass customer expectation. Customer satisfaction is defined as "the number of customers, or percentage of total customers, whose reported experience with a firm, its products, or its services (ratings) exceeds specified satisfaction goals."^[1] Enhancing customer satisfaction and fostering customer loyalty are pivotal for businesses, given the significant importance of improving the balance between customer attitudes before and after the consumption process.^[2]

Expectancy Disconfirmation Theory is the most widely accepted theoretical framework for explaining customer satisfaction.^[3] However, other frameworks, such as Equity Theory, Attribution Theory, Contrast Theory, Assimilation Theory, and various others, are also used to gain insights into customer satisfaction.^{[4][5][6]} However, traditionally applied satisfaction surveys are influenced by biases related to social desirability, availability heuristics, memory limitations, respondents' mood while answering questions, as well as affective, unconscious, and dynamic nature of customer experience.^[2]

The Marketing Accountability Standards Board endorses the definitions, purposes, and measures that appear in *Marketing Metrics* as part of its ongoing Common Language in Marketing Project.^[7] In a survey of nearly 200 senior marketing managers, 71 percent responded that they found a customer satisfaction metric very useful in managing and monitoring their businesses.^[1] Customer satisfaction is viewed as a key performance indicator within business and is often part of a Balanced Scorecard. In a competitive marketplace where businesses compete for customers, customer satisfaction is seen as a major differentiator and increasingly has become an important element of business strategy.^[8]

Purpose

[edit]



A business ideally is continually seeking feedback to improve customer satisfaction.

Customer satisfaction provides a leading indicator of consumer purchase intentions and loyalty.^[1] The authors also wrote that "customer satisfaction data are among the most frequently collected indicators of market perceptions. Their principal use is twofold:"^[1]

1. "Within organizations, the collection, analysis and dissemination of these data send a message about the importance of tending to customers and ensuring that they have a positive experience with the company's goods and services."^[1]
2. "Although sales or market share can indicate how well a firm is performing *currently*, satisfaction is perhaps the best indicator of how likely it is that the firm's

customers will make further purchases *in the future*. Much research has focused on the relationship between customer satisfaction and retention. Studies indicate that the ramifications of satisfaction are most strongly realized at the extremes."

On a five-point scale, "individuals who rate their satisfaction level as '5' are likely to become return customers and might even evangelize for the firm.^[9] A second important metric related to satisfaction is willingness to recommend. This metric is defined as "[t]he percentage of surveyed customers who indicate that they would recommend a brand to friends." A previous study about customer satisfaction stated that when a customer is satisfied with a product, he or she might recommend it to friends, relatives and colleagues.^[10] This can be a powerful marketing advantage. According to Faris et al., "[i]ndividuals who rate their satisfaction level as '1,' by contrast, are unlikely to return. Further, they can hurt the firm by making negative comments about it to prospective customers. Willingness to recommend is a key metric relating to customer satisfaction."^[1]

Theoretical ground

[edit]

In the research literature, the antecedents of customer satisfaction are studied from different perspectives. These perspectives extend from the psychological to the physical as well as from the normative perspective. However, in much of the literature, research has been focused on two basic constructs, (a) expectations prior to purchase or use of a product and (b) customer perception of the performance of that product after using it.

A customer's expectations about a product bear on how the customer thinks the product will perform. Consumers are thought to have various "types" of expectations when forming opinions about a product's anticipated performance. Miller (1977) described four types of expectations: ideal, expected, minimum tolerable, and desirable. Day (1977) underlined different types of expectations, including ones about costs, the nature of the product, benefits, and social value.

It is considered that customers judge products on a limited set of norms and attributes. Olshavsky and Miller (1972) and Olson and Dover (1976) designed their researches as to manipulate actual product performance, and their aim was to find out how perceived performance ratings were influenced by expectations. These studies took out the discussions about explaining the differences between expectations and perceived performance."^[11]

In some research studies, scholars have been able to establish that customer satisfaction has a strong emotional, i.e., affective, component.^[12] Still others show that the cognitive and affective components of customer satisfaction reciprocally

influence each other over time to determine overall satisfaction.[¹³]

Especially for durable goods that are consumed over time, there is value to taking a dynamic perspective on customer satisfaction. Within a dynamic perspective, customer satisfaction can evolve over time as customers repeatedly use a product or interact with a service. The satisfaction experienced with each interaction (transactional satisfaction) can influence the overall, cumulative satisfaction. Scholars showed that it is not just overall customer satisfaction, but also customer loyalty that evolves over time.[¹⁴]

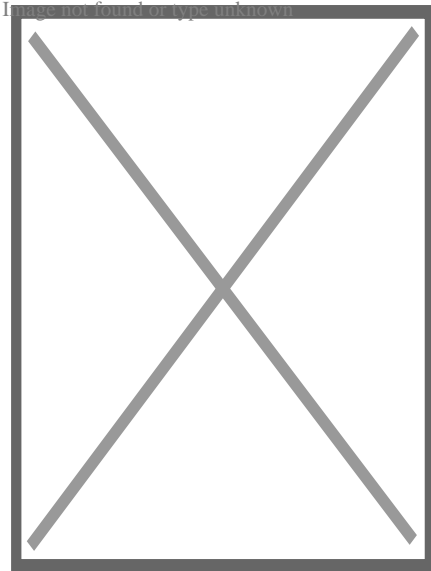
The Disconfirmation Model

[edit]

"The Disconfirmation Model is based on the comparison of customers' [expectations] and their [perceived performance] ratings. Specifically, an individual's expectations are confirmed when a product performs as expected. It is negatively confirmed when a product performs more poorly than expected. The disconfirmation is positive when a product performs over the expectations (Churchill & Suprenant 1982). There are four constructs to describe the traditional disconfirmation paradigm mentioned as expectations, performance, disconfirmation and satisfaction."^[11] "Satisfaction is considered as an outcome of purchase and use, resulting from the buyers' comparison of expected rewards and incurred costs of the purchase in relation to the anticipated consequences. In operation, satisfaction is somehow similar to attitude as it can be evaluated as the sum of satisfactions with some features of a product."^[11] "In the literature, cognitive and affective models of satisfaction are also developed and considered as alternatives (Pfaff, 1977). Churchill and Suprenant in 1982, evaluated various studies in the literature and formed an overview of Disconfirmation process in the following figure:"^[11]

Construction

[edit]



A four-item six-point customer service satisfaction form

Organizations need to retain existing customers while targeting non-customers.^[15] Measuring customer satisfaction provides an indication of how successful the organization is at providing products and/or services to the marketplace.

"Customer satisfaction is measured at the individual level, but it is almost always reported at an aggregate level. It can be, and often is, measured along various dimensions. A hotel, for example, might ask customers to rate their experience with its front desk and check-in service, with the room, with the amenities in the room, with the restaurants, and so on. Additionally, in a holistic sense, the hotel might ask about overall satisfaction 'with your stay.'^[1]

As research on consumption experiences grows, evidence suggests that consumers purchase goods and services for a combination of two types of benefits: hedonic and utilitarian.^[16] Hedonic benefits are associated with the sensory and experiential attributes of the product. Utilitarian benefits of a product are associated with the more instrumental and functional attributes of the product (Batra and Athola 1990).^[17]

Customer satisfaction is an ambiguous and abstract concept and the actual manifestation of the state of satisfaction will vary from person to person and product/service to product/service. The state of satisfaction depends on a number of both psychological and physical variables which correlate with satisfaction behaviors such as return and recommend rate. The level of satisfaction can also vary depending on other options the customer may have and other products against which the customer can compare the organization's products.

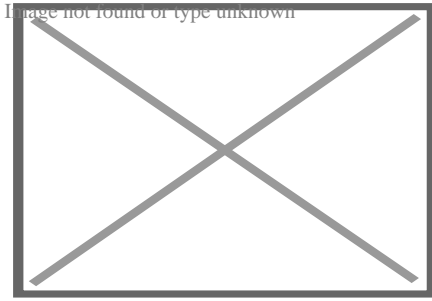
Work done by Parasuraman, Zeithaml and Berry (Leonard L)^[18] between 1985 and 1988 provides the basis for the measurement of customer satisfaction with a service by using the gap between the customer's expectation of performance and their

perceived experience of performance. This provides the measurer with a satisfaction "gap" which is objective and quantitative in nature. Work done by Cronin and Taylor propose the "confirmation/disconfirmation" theory of combining the "gap" described by Parasuraman, Zeithaml and Berry as two different measures (perception and expectation of performance) into a single measurement of performance according to expectation.

The usual measures of customer satisfaction involve a survey^[19] using a Likert scale. The customer is asked to evaluate each statement in terms of their perceptions and expectations of performance of the organization being measured.^{[1][20]}

Good quality measures need to have high satisfaction loading, good reliability, and low error variances. In an empirical study comparing commonly used satisfaction measures it was found that two multi-item semantic differential scales performed best across both hedonic and utilitarian service consumption contexts. A study by Wirtz & Lee (2003),^[21] found that a six-item 7-point semantic differential scale (for example, Oliver and Swan 1983), which is a six-item 7-point bipolar scale, consistently performed best across both hedonic and utilitarian services. It loaded most highly on satisfaction, had the highest item reliability, and had by far the lowest error variance across both studies. In the study,^[21] the six items asked respondents' evaluation of their most recent experience with ATM services and ice cream restaurant, along seven points within these six items: "*pleased me to displeased me*", "*contented with to disgusted with*", "*very satisfied with to very dissatisfied with*", "*did a good job for me to did a poor job for me*", "*wise choice to poor choice*" and "*happy with to unhappy with*". A semantic differential (4 items) scale (e.g., Eroglu and Machleit 1990),^[22] which is a four-item 7-point bipolar scale, was the second best performing measure, which was again consistent across both contexts. In the study, respondents were asked to evaluate their experience with both products, along seven points within these four items: "*satisfied to dissatisfied*", "*favorable to unfavorable*", "*pleasant to unpleasant*" and "*I like it very much to I didn't like it at all*".^[21] The third best scale was single-item percentage measure, a one-item 7-point bipolar scale (e.g., Westbrook 1980).^[23] Again, the respondents were asked to evaluate their experience on both ATM services and ice cream restaurants, along seven points within "*delighted to terrible*".^[21]

Finally, all measures captured both affective and cognitive aspects of satisfaction, independent of their scale anchors.^[21] Affective measures capture a consumer's attitude (liking/disliking) towards a product, which can result from any product information or experience. On the other hand, cognitive element is defined as an appraisal or conclusion on how the product's performance compared against expectations (or exceeded or fell short of expectations), was useful (or not useful), fit the situation (or did not fit), exceeded the requirements of the situation (or did not exceed).



A single-item four-point HappyOrNot customer satisfaction feedback terminal

Recent research shows that in most commercial applications, such as firms conducting customer surveys, a single-item overall satisfaction scale performs just as well as a multi-item scale.^[24] Especially in larger scale studies where a researcher needs to gather data from a large number of customers, a single-item scale may be preferred because it can reduce total survey error.^[25] An interesting recent finding from re-interviewing the same clients of a firm is that only 50% of respondents give the same satisfaction rating when re-interviewed, even when there has been no service encounter between the client and firm between surveys.^[26] The study found a 'regression to the mean' effect in customer satisfaction responses, whereby the respondent group who gave unduly low scores in the first survey regressed up toward the mean level in the second, while the group who gave unduly high scores tended to regress downward toward the overall mean level in the second survey.

Methodologies

[edit]

American Customer Satisfaction Index (ACSI) is a scientific standard of customer satisfaction. Academic research has shown that the national ACSI score is a strong predictor of Gross Domestic Product (GDP) growth, and an even stronger predictor of Personal Consumption Expenditure (PCE) growth.^[27] On the microeconomic level, academic studies have shown that ACSI data is related to a firm's financial performance in terms of return on investment (ROI), sales, long-term firm value (Tobin's q), cash flow, cash flow volatility, human capital performance, portfolio returns, debt financing, risk, and consumer spending.^{[28][29]} Increasing ACSI scores have been shown to predict loyalty, word-of-mouth recommendations, and purchase behavior. The ACSI measures customer satisfaction annually for more than 200 companies in 43 industries and 10 economic sectors. In addition to quarterly reports, the ACSI methodology can be applied to private sector companies and government agencies in order to improve loyalty and purchase intent.^[30]

The Kano model is a theory of product development and customer satisfaction developed in the 1980s by Professor Noriaki Kano that classifies customer

preferences into five categories: Attractive, One-Dimensional, Must-Be, Indifferent, Reverse. The Kano model offers some insight into the product attributes which are perceived to be important to customers.

SERVQUAL or RATER is a service-quality framework that has been incorporated into customer-satisfaction surveys (e.g., the revised Norwegian Customer Satisfaction Barometer^[31]) to indicate the gap between customer expectations and experience.

J.D. Power and Associates provides another measure of customer satisfaction, known for its top-box approach and automotive industry rankings. J.D. Power and Associates' marketing research consists primarily of consumer surveys and is publicly known for the value of its product awards.

Other research and consulting firms have customer satisfaction solutions as well. These include A.T. Kearney's Customer Satisfaction Audit process,^[32] which incorporates the Stages of Excellence framework and which helps define a company's status against eight critically identified dimensions.

The Net Promoter Score (NPS) is also used to measure customer satisfaction. On a scale of 0 to 10, this score measures the willingness of customers to recommend a company to others. Despite many points of criticism from a scientific point of view, the NPS is widely used in practice.^[33] Its popularity and broad use have been attributed to its simplicity and its openly available methodology.

For B2B customer satisfaction surveys, where there is a small customer base, a high response rate to the survey is desirable.^[34] The American Customer Satisfaction Index (2012) found that response rates for paper-based surveys were around 10% and the response rates for e-surveys (web, wap and e-mail) were averaging between 5% and 15% - which can only provide a straw poll of the customers' opinions.

In the European Union member states, many methods for measuring impact and satisfaction of e-government services are in use, which the eGovMoNet project sought to compare and harmonize.^[35]

These customer satisfaction methodologies have not been independently audited by the Marketing Accountability Standards Board according to MMAP (Marketing Metric Audit Protocol).

There are many operational strategies for improving customer satisfaction but at the most fundamental level you need to understand customer expectations.

Recently there has been a growing interest in predicting customer satisfaction using big data and machine learning methods (with behavioral and demographic features as predictors) to take targeted preventive actions aimed at avoiding churn, complaints and dissatisfaction.^[36]

Prevalence

[edit]

A 2008 survey found that only 3.5% of Chinese consumers were satisfied with their online shopping experience.^[37] A 2020 Arizona State University survey found that customer satisfaction in the United States is deteriorating. Roughly two-thirds of survey participants reported feeling "rage" over their experiences as consumers. A multi-decade decline in consumer satisfaction since the 1970s was observed. A majority of respondents felt that their customer service complaints were not sufficiently addressed by businesses.^[38] A 2022 report found that consumer experiences in the United States had declined substantially in the 2 years since the beginning of the COVID-19 pandemic.^[39] In the United Kingdom in 2022, customer service complaints were at record highs, owing to staffing shortages and the supply crisis related to the COVID pandemic.^[40]

See also

[edit]

- Customer experience
- Business case
- Computer user satisfaction
- Customer satisfaction research
- Customer service
- Customer Loyalty
- The International Customer Service Institute

References

[edit]

- [^] ***a b c d e f g h*** Farris, Paul W.; Bendle, Neil T.; Pfeifer, Phillip E.; Reibstein, David J. (2010). *Marketing Metrics: The Definitive Guide to Measuring Marketing Performance*. Upper Saddle River, New Jersey: Pearson Education. ISBN 0-13-705829-2..
- [^] ***a b*** Godovykh, Maksim; Tasci, Asli D. A. (2020-09-16). "Satisfaction vs experienced utility: current issues and opportunities". *Current Issues in Tourism*. **23** (18): 2273–2282. doi:10.1080/13683500.2020.1769573. ISSN 1368-3500.
- [^] Oliver, Richard L. (November 1980). "A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions". *Journal of Marketing Research*. **17** (4): 460–469. doi:10.1177/002224378001700405. ISSN 0022-2437.
- [^] Adams, J. Stacy (November 1963). "Towards an understanding of inequity". *The Journal of Abnormal and Social Psychology*. **67** (5): 422–436. doi:10.1037/h0040968. ISSN 0096-851X.

5. ^ Kelley, Harold H. (February 1973). "The processes of causal attribution". *American Psychologist*. **28** (2): 107–128. doi:10.1037/h0034225. ISSN 1935-990X.
6. ^ Anderson, Rolph E. (February 1973). "Consumer Dissatisfaction: The Effect of Disconfirmed Expectancy on Perceived Product Performance". *Journal of Marketing Research*. **10** (1): 38. doi:10.2307/3149407. ISSN 0022-2437.
7. ^ <http://www.commonlanguage.wikispaces.net/> Archived 2019-04-05 at the Wayback Machine Material used from this publication in this article has been licensed under Creative Commons Share Alike and Gnu Free Documentation License. See talk.
8. ^ Gitman, Lawrence J.; Carl D. McDaniel (2005). *The Future of Business: The Essentials*. Mason, Ohio: South-Western. ISBN 978-0-324-32028-2.
9. ^ Coelho, Pedro S.; Esteves, Susana P. (May 2007). "The Choice between a Fivepoint and a Ten-point Scale in the Framework of Customer Satisfaction Measurement". *International Journal of Market Research*. **49** (3): 313–339. doi:10.1177/147078530704900305. ISSN 1470-7853. S2CID 166325179.
10. ^ Dawes, John; Stocchi, Lara; Dall’Olmo-Riley, Francesca (May 2020). "Overtime variation in individual's customer satisfaction scores" (PDF). *International Journal of Market Research*. **62** (3): 262–271. doi:10.1177/1470785320907538. ISSN 1470-7853. S2CID 213159177.
11. ^ **a b c d** Kucukosmanoglu, Ahmet Nuri; Sensoy Ertan (2010). "Customer Satisfaction: A Central Phenomenon in Marketing". [1]
12. ^ Westbrook, Robert A., and Richard L. Oliver. "The dimensionality of consumption emotion patterns and consumer satisfaction." *Journal of consumer research* (1991): 84-91.
13. ^ Homburg, Christian, Nicole Koschate, and Wayne D. Hoyer. "The role of cognition and affect in the formation of customer satisfaction: a dynamic perspective." *Journal of Marketing* 70.3 (2006): 21-31.
14. ^ Johnson, Michael D., Andreas Herrmann, and Frank Huber. "The evolution of loyalty intentions." *Journal of marketing* 70.2 (2006): 122-132.
15. ^ John, Joby (2003). *Fundamentals of Customer-Focused Management: Competing Through Service*. Westport, Conn.: Praeger. ISBN 978-1-56720-564-0.
16. ^ Parker, Christopher J.; Wang, Huchen (2016). "Examining hedonic and utilitarian motivations for m-commerce fashion retail app engagement". *Journal of Fashion Marketing and Management*. **20** (4): 487–506. doi:10.1108/JFMM-02-2016-0015.
17. ^ Batra, Rajeev and Olli T. Athola (1990), "Measuring the Hedonic and Utilitarian Sources of Consumer Attitudes," *Marketing Letters*, 2 (2), 159-70.
18. ^ Berry, Leonard L.; A. Parasuraman (1991). *Marketing Services: Competing Through Quality*. New York: Free Press. ISBN 978-0-02-903079-0.
19. ^ Kessler, Sheila (2003). *Customer satisfaction toolkit for ISO 9001:2000*. Milwaukee, Wis.: ASQ Quality Press. ISBN 0-87389-559-2.

20. ^ Wirtz, Jochen and John E. G. Bateson (1995), "An Experimental Investigation of Halo Effects in Satisfaction Measures of Service Attributes," *International Journal of Service Industry Management*, 6 (3), 84-102.
21. ^ **a b c d e** Wirtz, Jochen; Chung Lee, Meng (2003), "An Empirical Study on The Quality and Context-specific Applicability of Commonly Used Customer Satisfaction Measures," *Journal of Service Research*, Vol. 5, No. 4, 345-355.
22. ^ Eroglu, Sergin A. and Karen A. Machleit (1990), "An Empirical Study of Retail Crowding: Antecedents and Consequences," *Journal of Retailing*, 66 (Summer), 201-21.
23. ^ Westbrook, Robert A. (1980), "A Rating Scale for Measuring Product/Service Satisfaction," *Journal of Marketing*, 44 (Fall), 68-72.
24. ^ Drolet, Aimee L., and Donald G. Morrison. "Do we really need multiple-item measures in service research?." *Journal of service research* 3, no. 3 (2001): 196-204.
25. ^ Salant, Priscilla, and Don A. Dillman. "How to Conduct your own Survey: Leading professional give you proven techniques for getting reliable results." (1995)
26. ^ Dawes, J. Stocchi, L., Dall'Olmo-Riley, F. "Over-time Variation in Customer Satisfaction Scores", *International Journal of Market Research*, March 2020
27. ^ Fornell, C., R.T. Rust and M.G. Dekimpe (2010). "The Effect of Customer Satisfaction on Consumer Spending Growth," *Journal of Marketing Research*, 47(1), 28-35.
28. ^ Anderson, E.W., C. Fornell & S.K. Mazvancheryl (2004). "Customer Satisfaction and Shareholder Value." *Journal of Marketing*, Vol. 68, October, 172-185.
29. ^ Fornell, C., S. Mithas, F.V. Morgeson III, and M.S. Krishnan (2006). "Customer Satisfaction and Stock Prices: High Returns, Low Risk," *Journal of Marketing*, 70(1), 3?14.
30. ^ Morgeson, F. V., & Petrescu, C. (2011). "Do They All Perform Alike? An Examination of Perceived Performance, Citizen Satisfaction and Trust with US Federal Agencies." *International Review of Administrative Sciences*, 77(3), 451-479.
31. ^ *Johnson, Michael D.; Anders Gustafsson; Tor Wallin Andreassenc; Line Lervik; Jaesung Cha (2001). "The evolution and future of national customer satisfaction index models". Journal of Economic Psychology. 22 (2): 217–245. CiteSeerX 10.1.1.134.7658. doi:10.1016/S0167-4870(01)00030-7. ISSN 0167-4870.*
32. ^ *Bluestein, Abram; Michael Moriarty; Ronald J Sanderson (2003). The Customer Satisfaction Audit. Axminster: Cambridge Strategy Publications. ISBN 978-1-902433-98-1.*
33. ^ *Reichheld, Frederick F. (December 2003). "One Number You Need to Grow". Harvard Business Review. 81 (12): 46–54, 124. PMID 14712543.*
34. ^ *Customer Relationship Management, Emerging Concepts, Tools and Application, Edited by Jagsish N Sheth, Atul Parvatiyar and G Shainesh,*

published by Tata McGraw-Hill Education - see Chapter 21, pages 193 to 199

35. ^ European Commission: eGovMoNet: eGovernment Monitor Network.
36. ^ Pokryshevskaya, Elena B.; Antipov, Evgeny A. (2017). "Profiling satisfied and dissatisfied hotel visitors using publicly available data from a booking platform". *International Journal of Hospitality Management*. **67**: 1–10. doi:10.1016/j.ijhm.2017.07.009.
37. ^ Liu, Xia; He, Mengqiao; Gao, Fang; Xie, Peihong (1 January 2008). "An empirical study of online shopping customer satisfaction in China: a holistic perspective". *International Journal of Retail & Distribution Management*. **36** (11): 919–940. doi:10.1108/09590550810911683. ISSN 0959-0552.
38. ^ "Customer service is worse than ever and so is consumers' rage". ASU News. 18 June 2020.
39. ^ Deighton, Katie (7 June 2022). "Customer Experience Is Getting Worse". *Wall Street Journal*.
40. ^ Clark, Jess (5 July 2022). "UK customer service complaints at highest level on record, research finds". *The Guardian*.

External links

[edit]

- Customer Satisfaction: A Central Phenomenon in Marketing
 - Germany
 - United States
 - Japan
 - Israel

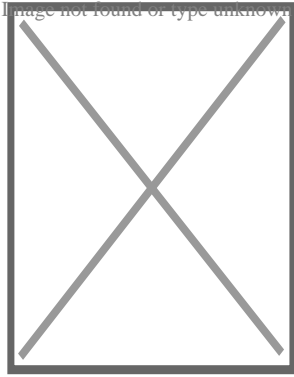
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About Construction waste

- v
- t
- e

Part of a series on





Polyurethane insulator material marked for removal of the construction site (of a residential building)

Air

- Acid rain
- Air quality index
- Atmospheric dispersion modeling
- Chlorofluorocarbon
- Combustion
- Exhaust gas
- Haze
- Global dimming
- Global distillation
- Indoor air quality
- Non-exhaust emissions
- Ozone depletion
- Particulates
- Persistent organic pollutant
- Smog
- Soot
- Volatile organic compound

Biological

- Biological hazard
- Genetic
- Illegal logging
- Introduced species
 - Invasive species

Digital

- Information

Electromagnetic

- Light
 - Ecological
 - Overillumination
- Radio spectrum

Natural

- Ozone
- Radium and radon in the environment
- Volcanic ash
- Wildfire

Noise

- Transportation
- Health effects from noise
- Marine mammals and sonar
- Noise barrier
- Noise control
- Soundproofing

Radiation

- Actinides
- Bioremediation
- Depleted uranium
- Nuclear fission
- Nuclear fallout
- Plutonium
- Poisoning
- Radioactivity
- Uranium
- Radioactive waste

Soil

- Agricultural
- Land degradation
- Bioremediation
- Defecation
- Electrical resistance heating
- Illegal mining
- Soil guideline values
- Phytoremediation

Solid waste

- Advertising mail
- Biodegradable waste
- Brown waste
- Electronic waste
- Foam food container
- Food waste
- Green waste
- Hazardous waste
- Industrial waste
- Litter
- Mining
- Municipal solid waste
- Nanomaterials
- Plastic
- Packaging waste
- Post-consumer waste
- Waste management

Space

- Space debris

Thermal

- Urban heat island

Visual

- Air travel
- Advertising clutter
- Overhead power lines
- Traffic signs
- Urban blight
- Vandalism

War

- Chemical warfare
- Herbicidal warfare
 - Agent Orange
- Nuclear holocaust
 - Nuclear fallout
 - Nuclear famine
 - Nuclear winter
- Scorched earth
- Unexploded ordnance
- War and environmental law

Water

- Agricultural wastewater
- Biosolids
- Diseases
- Eutrophication
- Firewater
- Freshwater
- Groundwater
- Hypoxia
- Industrial wastewater
- Marine
- Monitoring
- Nonpoint source
- Nutrient
- Ocean acidification
- Oil spill
- Pharmaceuticals
- Freshwater salinization
- Septic tanks
- Sewage
- Shipping
- Sludge
- Stagnation
- Sulfur water
- Surface runoff
- Turbidity
- Urban runoff
- Water quality
- Wastewater

Topics

- History
- Pollutants
 - Heavy metals
 - Paint

- Area source
- Brain health and pollution
- Debris
- Dust
- Garbology
- Legacy
- Midden
- Point source
- Waste
 - Toxic

Lists

- Diseases
- Law by country
- Most polluted cities
- Least polluted cities by PM2.5
- Treaties
- Most polluted rivers

Categories

- By country

-
-  Environment portal
 -  Ecology portal
-

Construction waste causing substantial fugitive dust emission in a densely populated area in Hong Kong

Construction waste or **debris** is any kind of debris from the construction process. Different government agencies have clear definitions. For example, the United States Environmental Protection Agency EPA defines construction and demolition materials as “debris generated during the construction, renovation and demolition of buildings, roads, and bridges.” Additionally, the EPA has categorized Construction and Demolition (C&D) waste into three categories: non-dangerous, hazardous, and semi-hazardous.[¹]

Of total construction and demolition (C&D) waste in the United States, 90% comes from the demolition of structures, while waste generated during construction accounts for less than 10%. [²] Construction waste frequently includes materials that are hazardous if disposed of in landfills. Such items include fluorescent lights, batteries, and other electrical equipment. [³]

When waste is created, options of disposal include exportation to a landfill, incineration, direct site reuse through integration into construction or as fill dirt, and recycling for a new use if applicable. In dealing with construction and demolition waste products, it is often hard to recycle and repurpose because of the cost of processing. Businesses recycling materials must compete with often the low cost of landfills and new construction commodities.^[4] Data provided by 24 states reported that solid waste from construction and demolition (C&D) accounts for 23% of total waste in the U.S.^[5] This is almost a quarter of the total solid waste produced by the United States. During construction a lot of this waste spends in a landfill leaching toxic chemicals into the surrounding environment. Results of a recent questionnaire demonstrate that although 95.71% of construction projects indicate that construction waste is problematic, only 57.14% of those companies collect any relevant data.^[6]

Types of waste

[edit]

C&D Materials, construction and demolition materials, are materials used in and harvested from new building and civil engineer structures.^[3] Much building waste is made up of materials such as bricks, concrete and wood damaged or unused during construction. Observational research has shown that this can be as high as 10 to 15% of the materials that go into a building, a much higher percentage than the 2.5-5% usually assumed by quantity surveyors and the construction industry. Since considerable variability exists between construction sites, there is much opportunity for reducing this waste.^[7]

There has been a massive increase in construction and demolition waste created over the last 30 years in the United States. In 1990, 135 million tons of construction and demolition debris by weight were created and had risen to 600 million tons by the year 2018. This is a 300% increase, but it is important to note that since 2015 the EPA has kept records of how the waste is disposed of. In 2018, 600 million tons of waste was created due to construction and demolition, and 143 million tons of it resides in landfills.^[2] This means that about 76% of waste is now retained and repurposed in the industry, but there is still more waste being exported to landfills than the entire amount of waste created in 1990.

This unsustainable consumption of raw materials creates increasing business risks. This includes higher material costs or disruptions in the supply chains.^[8] In 2010, the EPA created the Sustainable Materials Management (SMM) Program Strategic Plan which marked a strategic shift by the EPA to move emphasis from broad resource recovery initiative to sustainable materials management. Since material management regulations largely exist at a state and local level, this is no real standard practice across the nation for responsible waste mitigation strategies for construction materials.

The EPA aims to increase access to collection, processing, and recycling infrastructure in order to meet this issue head on.

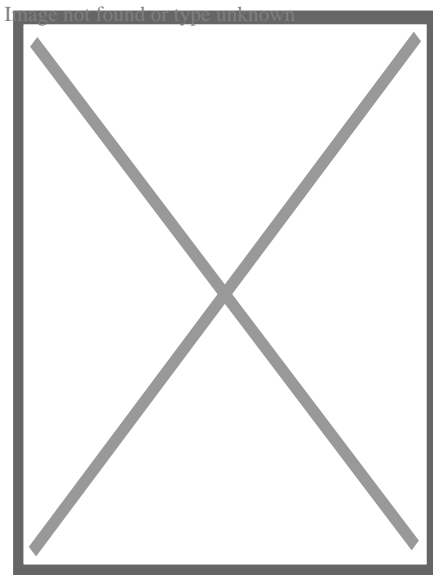
Main causes of waste

[edit]

Construction waste can be categorized as follows: Design, Handling, Worker, Management, Site condition, Procurement and External. These categories were derived from data collected from past research concerning the frequency of different types of waste noted during each type of these activities.^[9] Examples of this type of waste are as follows:

Steel reinforcement

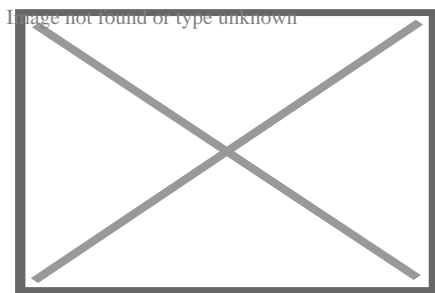
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Construction site in Amsterdam

Steel is used as reinforcement and structural integrity in the vast majority of construction projects. The main reasons steel is wasted on a site is due to irresponsible beam cutting and fabrication issues. The worst sites usually end up being the ones that do not have adequate design details and standards, which can result in waste due to short ends of bars being discarded due to improper planning of cuts.^[10] Many companies now choose to purchase preassembled steel reinforcement pieces. This reduces waste by outsourcing the bar cutting to companies that prioritize

responsible material use.



Concrete Mixer

Premixed concrete

[edit]

Premixed concrete has one of the lowest waste indices when compared to other building materials. Many site managers cite the difficulties controlling concrete delivery amounts as a major issue in accurately quantifying concrete needed for a site. The deviations from actually constructed concrete slabs and beams and the design amounts necessary were found to be 5.4% and 2.7% larger than expected, respectively, when comparing the data from 30 Brazilian sites. Many of these issues were attributed to inadequate form layout or lack of precision in excavation for foundation piles. Additionally, site managers know that additional concrete may be needed, and they will often order excess material to not interrupt the concrete pouring. [10]

Pipes and wires

[edit]

It is often difficult to plan and keep track of all the pipes and wires on a site as they are used in so many different areas of a project, especially when electrical and plumbing services are routinely subcontracted. Many issues of waste arise in this area of the construction process because of poorly designed details and irresponsible cutting of pipes and wires leaving short, wasted pipes and wires. [10]

Improper material storage

[edit]

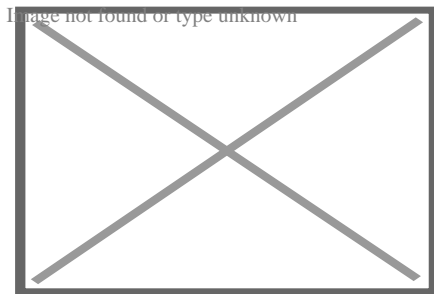
The second leading cause of construction waste production is improper material storage. Exposure to the elements and miss handling by persons are due to human error.^[10] Part of this human error can lead to illegal dumping and illegal transportation volume of waste from a jobsite.^[11]

Recycling, disposal and environmental impact

[edit]

Recycling and reuse of material

[edit]



Recycling Trucks

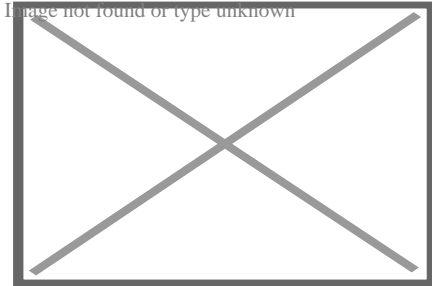
Most guidelines on C&D waste management follows the waste managing hierarchy framework. This framework involves a set of alternatives for dealing with waste arranged in descending order of preference. The waste hierarchy is a nationally and internationally accepted concept used to priorities and guide efforts to manage waste. Under the idea of Waste Hierarchy, there is the concept of the "3R's," often known as "reduce, reuse, recycle." Certain countries adopt different numbers of "R's." The European Union, for example, puts principal to the "4R" system which includes "Recovery" in order to reduce waste of materials.^[12] Alternatives include prevention, energy recovery, (treatment) and disposal.

It is possible to recycle many elements of construction waste. Often roll-off containers are used to transport the waste. Rubble can be crushed and reused in construction projects. Waste wood can also be recovered and recycled.

Landfilling

[edit]

Some certain components of construction waste such as plasterboard are hazardous once landfilled. Plasterboard is broken down in landfill conditions releasing hydrogen sulfide, a toxic gas. Once broken down, Plasterboard poses a threat for increases Arsenic concentration Levels in its toxic inorganic form.[¹³] The traditional disposal way for construction waste is to send it to landfill sites. In the U.S., federal regulations now require groundwater monitoring, waste screening, and operator training, due to the environmental impact of waste in C&D landfills (CFR 1996).[¹⁴] Sending the waste directly to a landfill causes many problems:



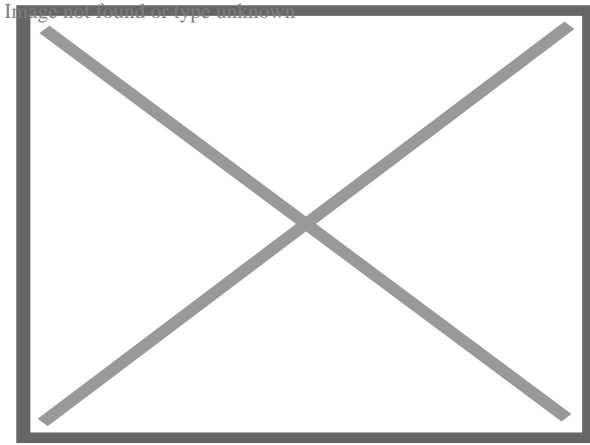
Landfill

- Waste of natural resources
- Increases construction cost, especially the transportation process[¹⁵]
- Occupies a large area of land
- Reduces soil quality
- Causes water pollution (Leachate)
- Causes air pollution
- Produces security risks etc.[¹⁶]

Incineration and health risks

[edit]

Where recycling is not an option, the disposal of construction waste and hazardous materials must be carried out according to legislation of relevant councils and regulatory bodies. The penalties for improper disposal of construction waste and hazardous waste, including asbestos, can reach into the tens of thousands of dollars for businesses and individuals.



Waste Incinerator

Waste-to-energy facilities burn more than 13% of solid municipal waste. The toxic fumes emitted by WTE plants can contain harmful chemicals such as mercury and other heavy metals, carbon monoxide, sulfur dioxide, and dioxins.

Dioxin was used as a waste oil in Times Beach, Missouri. Days after the chemicals were introduced to the community animals began dying. By the time the EPA deemed dioxins to be highly toxic in the 1980s, the CDC recommended the town be abandoned entirely due to contaminated waste products in the area. By 1985, the entire population of Times Beach had been relocated, prompting Missouri to build a new incinerator on the contaminated land. They continued to burn 265,000 tons of dioxin-contaminated waste until 1997.

Dioxins are a family of chemicals produced as a byproduct during the manufacturing of many pesticides and construction materials like carpeting and PVC. These chemicals exist in the environment attached to soil or dust particles that are invisible to the naked eye.

Dioxins break down slowly. It still threatens public health at low levels. Since industry has mostly stopped producing dioxins, one of the largest contributors releasing harmful dioxins left in the United States is waste incineration. Dioxins have been proven to cause cancer, reproductive and developmental issues, and immune system damage. Rates of cancer such as non-Hodgkin's lymphoma and soft tissue sarcoma rise significantly the closer one lives to the pollutants' source.^[17]

Management strategies

[edit]

Waste management fees

[edit]

Waste management fees, under the 'polluter pays principle', can help mitigate levels of construction waste.^[18] There is very little information on determining a waste management fee for construction waste created. Many models for this have been created in the past, but they are subjective and flawed. In 2019, a study method was proposed to optimize the construction waste management fee. The new model expands on previous ones by considering life-cycle costs of construction waste and weighs it against the willingness to improve construction waste management. The study was based out of China. China has a large waste management issue, and their landfills are mostly filled in urban areas. The results of the study indicated different waste management fees for metal, wood, and masonry waste as \$9.30, \$5.92, and \$4.25, respectively. The cost of waste management per square meter, or just under 11 square feet, on average was found to be \$0.12.^[19] This type of waste management system requires top-down legislative action. It is not a choice the contractor has the luxury of making on his/her own.

Europe

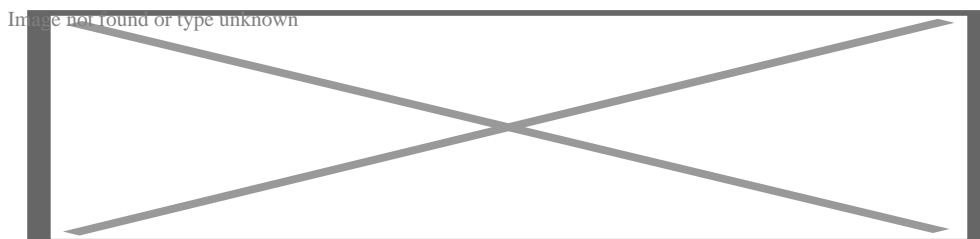
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In the European Union (EU), there is now significant emphasis on recycling building materials and adopting a cradle-to-grave ideology when it comes to building design, construction, and demolition. Their suggestions are much clearer and easier at the local or regional level, depending on government structure. In the 2016 EU Construction & Demolition Waste Management Protocol, they emphasize the benefits beyond financial gains for recycling such as job creation and reduced landfilling. They also emphasize the consideration of supply and demand geography; if the recycling plants are closer to urban areas than the aggregate quarries this can incentivize companies to use this recycled product even if it is not initially cheaper. In Austria, there are new improvements in the recycling of unusable wood products to be burnt in the creation of cement which offsets the carbon footprint of both products.^[20]

The EU urges local authorities who issue demolition and renovation permits to ensure that a high-quality waste management plan is being followed, and they emphasize the need for post-demolition follow-ups in order to determine if the implemented plans are

being followed. They also suggest the use of taxation to reduce the economic advantage of the landfills to create a situation where recycling becomes a reasonable choice financially. However, they do include the fact that the tax should only apply to recyclable waste materials. The main points of how the Europeans choose to address this issue of waste management is through the utilization of the tools given to a governing body to keep its people safe. Unlike in the United States, the EU's philosophy on waste management is not that it is an optional good thing to do when you can but a mandatory part of construction in the 21st century to ensure a healthy future for generations to follow.

Taxing landfill has been most effective in Belgium, Denmark and Austria, which have all decreased their landfill disposal by over 30% since introducing the tax. Denmark successfully cut its landfill use by over 80%, reaching a recycling rate over 60%. In the United Kingdom, all personnel performing builders or construction waste clearance are required by law to be working for a CIS registered business.^[21] However, the waste generation in the UK continues to grow, but the rate of increase has slowed.^[22]



A panorama of construction waste in Horton, Norway

United States

[edit]

The United States has no national landfill tax or fee, but many states and local governments collect taxes and fees on the disposal of solid waste. The California Department of Resource Recycling and Recovery (CalRecycle) was created in 2010 to address the growing C&D waste problem in the United States. CalRecycle aids in the creation of C&D waste diversion model ordinance in local jurisdictions. They also provide information and other educational material on alternative C&D waste facilities. They promote these ordinances by creating incentive programs to encourage companies to participate in the waste diversion practices. There are also available grants and loans to aid organizations in their waste reduction strategies.^[22] According to a survey, financially incentivizing stakeholders to reduce construction waste demonstrates favorable results. This information provides an alternative way to reduce the cost so that the industry is more careful in their project decisions from

beginning to end.[²³]

See also

[edit]

- ATSDR
- Carcinogen
- Construction dust | Metal dust | Metal swarf | Lead dust | Asbestos | Cement dust | Concrete dust | Wood dust | Paint dust
- Concrete recycling
- COPD
- COSHH
- Demolition waste
- NIEHS
- Particulates | Ultrafine particle
- Power tool
- Recycling
- Silicosis
- VOC
- Waste management
- Welding
- Embodied carbon

References

[edit]

1. ^ Broujeni, Omrani, Naghavi, Afraseyabi (February 2016). "Construction and Demolition Waste Management (Tehran Case Study)". *Journal of Solid Waste Technology & Management*. **6** (6): 1249–1252. doi:10.5281/zenodo.225510 – via Environment Complete.cite journal: CS1 maint: multiple names: authors list (link)
2. ^ **a b** US EPA, OLEM (2016-03-08). "Sustainable Management of Construction and Demolition Materials". US EPA. Retrieved 2020-12-17.
3. ^ **a b** "Construction and Demolition Materials". www.calrecycle.ca.gov. Retrieved 2020-12-17.
4. ^ Hubbe, Martin A. (2014-11-03). "What Next for Wood Construction/Demolition Debris?". *BioResources*. **10** (1): 6–9. doi:10.15376/biores.10.1.6-9. ISSN 1930-2126.
5. ^ "Municipal Solid Waste and Construction & Demolition Debris | Bureau of Transportation Statistics". www.bts.gov. Retrieved 2020-12-17.
6. ^ Tafesse, Girma, Dessalegn (March 2022). "Analysis of the socio-economic and environmental impacts of construction waste and management practices". *Heliyon*. **8** (3): e09169. Bibcode:2022Heliy...809169T. doi:10.1016/j.heliyon.2022.e09169. PMC 8971575. PMID 35368528.cite journal: CS1 maint: multiple names: authors list (link)

7. ^ Skoyles ER. Skoyles JR. (1987) *Waste Prevention on Site*. Mitchell Publishing, London. ISBN 0-7134-5380-X
8. ^ Thibodeau, Kenneth (2007-07-02). "The Electronic Records Archives Program at the National Archives and Records Administration". *First Monday*. doi: 10.5210/fm.v12i7.1922. ISSN 1396-0466.
9. ^ Nagapan, Rahman, Asmi (October 2011). "A Review of Construction Waste Cause Factors". *ACRE 2011 Conference Paper – via researchgate.net*. cite journal: CS1 maint: multiple names: authors list (link)
10. ^ **a b c d** Formoso, Carlos T.; Soibelman, Lucio; De Cesare, Claudia; Isatto, Eduardo L. (2002-08-01). "Material Waste in Building Industry: Main Causes and Prevention". *Journal of Construction Engineering and Management*. **128** (4): 316–325. doi:10.1061/(ASCE)0733-9364(2002)128:4(316). ISSN 0733-9364.
11. ^ Liu, Jingkuang; Liu, Yedan; Wang, Xuotong (October 2020). "An environmental assessment model of construction and demolition waste based on system dynamics: a case study in Guangzhou". *Environmental Science and Pollution Research*. **27** (30): 37237–37259. Bibcode:2020ESPR...2737237L. doi:10.1007/s11356-019-07107-5. ISSN 0944-1344. PMID 31893359. S2CID 209509814.
12. ^ Zhang, Chunbo; Hu, Mingming; Di Maio, Francesco; Sprecher, Benjamin; Yang, Xining; Tukker, Arnold (2022-01-10). "An overview of the waste hierarchy framework for analyzing the circularity in construction and demolition waste management in Europe". *Science of the Total Environment*. **803**: 149892. Bibcode:2022ScTEn.80349892Z. doi:10.1016/j.scitotenv.2021.149892. hdl: 1887/3212790. ISSN 0048-9697. PMID 34500281. S2CID 237468721.
13. ^ Zhang, Jianye; Kim, Hwidong; Dubey, Brajesh; Townsend, Timothy (2017-01-01). "Arsenic leaching and speciation in C&D debris landfills and the relationship with gypsum drywall content". *Waste Management*. **59**: 324–329. Bibcode:2017WaMan..59..324Z. doi:10.1016/j.wasman.2016.10.023. ISSN 0956-053X. PMID 27838158.
14. ^ Weber, Jang, Townsend, Laux (March 2002). "Leachate from Land Disposed Residential Construction Waste". *Journal of Environmental Engineering*. **128** (3): 237–244. doi:10.1061/(ASCE)0733-9372(2002)128:3(237) – via ASCE Library. cite journal: CS1 maint: multiple names: authors list (link)
15. ^ "RECYCLING CONSTRUCTION AND DEMOLITION WASTES A Guide for Architects and Contractors" (PDF). April 2005.
16. ^ "Construction Waste Management | WBDG Whole Building Design Guide". www.wbdg.org. Retrieved 2017-05-06.
17. ^ Rogers, Harvey W. (December 1995). "Incinerator air emissions: inhalation exposure perspectives". *Journal of Environmental Health*. **58** – via EBSCOhost.
18. ^ Poon, C. S.; Yu, Ann T. W.; Wong, Agnes; Yip, Robin (2013-05-01). "Quantifying the Impact of Construction Waste Charging Scheme on Construction Waste Management in Hong Kong". *Journal of Construction Engineering and Management*. **139** (5): 466–479. doi:10.1061/(ASCE)CO.1943-7862.0000631.

hdl:10397/6714. ISSN 1943-7862.

19. ^ Wang, Jiayuan; Wu, Huanyu; Tam, Vivian W. Y.; Zuo, Jian (2019). "Considering life-cycle environmental impacts and society's willingness for optimizing construction and demolition waste management fee: An empirical study of China". *Journal of Cleaner Production*. ISSN 0959-6526.
20. ^ Anonymous (2018-09-18). "EU Construction and Demolition Waste Protocol and Guidelines". *Internal Market, Industry, Entrepreneurship and SMEs - European Commission*. Retrieved 2020-12-17.
21. ^ "Construction Industry Scheme (CIS)". *GOV.UK*. Archived from the original on 27 April 2022. Retrieved 2020-02-21.
22. ^ **a b** Yu, A.; Poon, C.; Wong, A.; Yip, R.; Jaillon, L. (2013). "Impact of Construction Waste Disposal Charging Scheme on work practices at construction sites in Hong Kong". *Waste Management*. **33** (1): 138–146. Bibcode:2013WaMan..33..138Y. doi:10.1016/j.wasman.2012.09.023. hdl:10397/6713. PMID 23122205. S2CID 20266040.
23. ^ Mahpour & Mortaheb, Ph.D. (May 2018). "Financial-Based Incentive Plan to Reduce Construction Waste". *Journal of Construction Engineering and Management*. **144** (5): 04018029-1 to 04018029-10. doi:10.1061/(ASCE)CO.1943-7862.0001461 – via ASCE Library.

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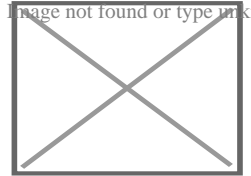
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- Construction Waste Management Database from the Whole Building Design Guide of the National Institute of Building Sciences
 - v
 - t
 - e
- Biosolids, waste, and waste management

Major types

- Agricultural wastewater
- Biodegradable waste
- Biomedical waste
- Brown waste
- Chemical waste
- Construction waste
- Demolition waste
- Electronic waste
 - by country
- Food waste
- Green waste
- Hazardous waste
- Heat waste
- Industrial waste
- Industrial wastewater
- Litter
- Marine debris
- Mining waste
- Municipal solid waste
- Open defecation
- Packaging waste
- Post-consumer waste
- Radioactive waste
- Scrap metal
- Sewage
- Sharps waste
- Surface runoff
- Toxic waste

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- Anaerobic digestion
- Balefill
- Biodegradation
- Composting
- Durable good
- Ecological design
- Garden waste dumping
- Illegal dumping
- Incineration
- Landfill
- Landfill mining
- Mechanical biological treatment
- Mechanical sorting
- Photodegradation
- Reclaimed lumber
- Recycling
 - appliance recycling
 - battery recycling
 - bottle recycling
 - fluorescent lamp recycling
 - land recycling
 - plastic recycling
 - textile recycling
 - timber recycling
 - tire recycling
 - water heat recycling
 - water recycling shower
- Repurposing
- Resource recovery
- Reusable packaging
- Right to repair
- Sewage treatment
- Urban mining
- Waste collection
- Waste sorting
- Waste trade
- Waste treatment
- Waste-to-energy

Processes

Countries

- Afghanistan
- Albania
- Armenia
- Australia
- Belgium
- Bangladesh
- Brazil
- Bosnia and Herzegovina
- Egypt
- Georgia
- Hong Kong
- India
- Israel
- Japan
- Kazakhstan
- New Zealand
- Russia
- South Korea
- Sri Lanka
- Switzerland
- Syria
- Tanzania
- Taiwan
- Thailand
- Turkey
- United Kingdom
- United States
- Bamako Convention
- Basel Convention
- EU directives
 - batteries
 - Recycling
 - framework
 - incineration
 - landfills
 - RoHS
 - vehicles
 - waste water
 - WEEE
- London Convention
- Oslo Convention
- OSPAR Convention

Agreements

Occupations

- Sanitation worker
- Street sweeper
- Waste collector
- Waste picker
- Blue Ribbon Commission on America's Nuclear Future
- China's waste import ban
- Cleaner production
- Downcycling
- Eco-industrial park
- Extended producer responsibility

Other topics

- High-level radioactive waste management
- History of waste management
- Landfill fire
- Sewage regulation and administration
- Upcycling
- Waste hierarchy
- Waste legislation
- Waste minimisation
- Zero waste

-  Environment portal

-  Category: Waste

- Index
- Journals
- Lists
- Organizations

- v
- t
- e

Construction

Types

- Home construction
- Offshore construction
- Underground construction
 - Tunnel construction
- Architecture
- Construction

History

- Structural engineering
- Timeline of architecture
- Water supply and sanitation

Professions

- Architect
- Building engineer
- Building estimator
- Building officials
- Chartered Building Surveyor
- Civil engineer
- Civil estimator
- Clerk of works
- Project manager
- Quantity surveyor
- Site manager
- Structural engineer
- Superintendent
- Banksman
- Boilermaker
- Bricklayer
- Carpenter
- Concrete finisher
- Construction foreman
- Construction worker
- Electrician
- Glazier
- Ironworker
- Millwright
- Plasterer
- Plumber
- Roofer
- Steel fixer
- Welder

**Trades
workers
(List)**

Organizations

- American Institute of Constructors (AIC)
- American Society of Civil Engineers (ASCE)
- Asbestos Testing and Consultancy Association (ATAC)
- Associated General Contractors of America (AGC)
- Association of Plumbing and Heating Contractors (APHC)
- Build UK
- Construction History Society
- Chartered Institution of Civil Engineering Surveyors (CICES)
- Chartered Institute of Plumbing and Heating Engineering (CIPHE)
- Civil Engineering Contractors Association (CECA)
- The Concrete Society
- Construction Management Association of America (CMAA)
- Construction Specifications Institute (CSI)
- FIDIC
- Home Builders Federation (HBF)
- Lighting Association
- National Association of Home Builders (NAHB)
- National Association of Women in Construction (NAWIC)
- National Fire Protection Association (NFPA)
- National Kitchen & Bath Association (NKBA)
- National Railroad Construction and Maintenance Association (NRC)
- National Tile Contractors Association (NTCA)
- Railway Tie Association (RTA)
- Royal Institution of Chartered Surveyors (RICS)
- Scottish Building Federation (SBF)
- Society of Construction Arbitrators
- India
- Iran
- Japan
- Romania
- Turkey
- United Kingdom
- United States
- Building code
- Construction law
- Site safety
- Zoning

By country

Regulation

- Architecture**
 - Style
 - List
 - Industrial architecture
 - British
 - Indigenous architecture
 - Interior architecture
 - Landscape architecture
 - Vernacular architecture
 - Architectural engineering
 - Building services engineering
 - Civil engineering
 - Coastal engineering
 - Construction engineering
 - Structural engineering
- Engineering**
 - Earthquake engineering
 - Environmental engineering
 - Geotechnical engineering
 - List
 - Earthbag construction
- Methods**
 - Modern methods of construction
 - Monocrete construction
 - Slip forming

- Building material
 - List of building materials
 - Millwork
- Construction bidding
- Construction delay
- Construction equipment theft
- Construction loan
- Construction management
- Construction waste
- Demolition
- Design–build
- Design–bid–build
- DfMA
- Heavy equipment
- Interior design
- Lists of buildings and structures
 - List of tallest buildings and structures
- Megaproject
- Megastructure
- Plasterwork
 - Damp
 - Proofing
 - Parge coat
 - Roughcast
 - Harling
- Real estate development
- Stonemasonry
- Sustainability in construction
- Unfinished building
- Urban design
- Urban planning

Other topics

 [Outline](#)  [Category](#) Image not found or type unknown

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Driving Directions in New Hanover County

Driving Directions From Catch to The Dumpo Junk Removal & Hauling

Driving Directions From BLUE SURF Arboretum West to The Dumpo Junk Removal & Hauling

Driving Directions From P T's Olde Fashioned Grille to The Dumpo Junk Removal & Hauling

Driving Directions From China One to The Dumpo Junk Removal & Hauling

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Driving Directions From The Children's Museum of Wilmington to The Dumpo Junk Removal & Hauling

Driving Directions From Battleship North Carolina to The Dumpo Junk Removal & Hauling

Driving Directions From Wilmington Railroad Museum to The Dumpo Junk Removal & Hauling

Driving Directions From Bellamy Mansion Museum to The Dumpo Junk Removal & Hauling

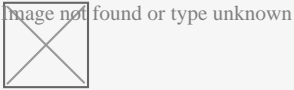
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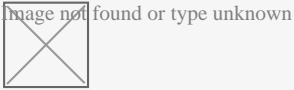
Reviews for



Kelly Vaughn

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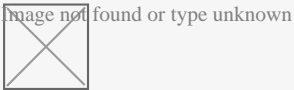
Great service with professionalism. You can't ask for more than that!



Greg Wallace

(5)

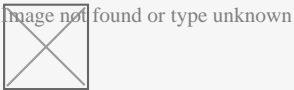
I highly recommend Dumpo Junk Removal. Very professional with great pricing and quality work.



Howard Asberry

(5)

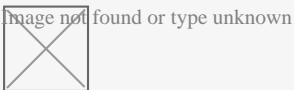
The manager was very helpful, knowledgeable and forthright. He definitely knew what he was talking about and explained everything to me and was very helpful. I'm looking forward to working with him



Kirk Schmidt

(5)

They are great with junk removal. Highly recommend them



Jennifer Davidson

(5)

Great work! Bryce and Adrian are great!

Comparing Time Based Service Charges [View GBP](#)

Frequently Asked Questions

How do time-based service charges for e-waste processing vary between different facilities or providers?

Time-based service charges for e-waste processing can vary based on factors such as the providers operational costs, the complexity of the waste being processed, regional labor rates, and their level of expertise. Some facilities may charge a flat hourly rate while others might base their fees on the weight or type of e-waste.

What components of e-waste processing contribute most to time-based charges?

The components that typically contribute most to time-based charges in e-waste processing include manual sorting and dismantling of devices, data destruction processes, specialized treatment for hazardous materials like batteries and CRT glass, and compliance with regulatory requirements. These steps are labor-intensive and require skilled personnel.

Are there any strategies to minimize time-based service charges in e-waste processing?

Strategies to minimize time-based service charges include streamlining collection logistics to reduce handling times, optimizing sorting processes through automation where possible, negotiating bulk-processing discounts with providers, ensuring proper initial segregation by type at collection points to facilitate faster processing, and choosing providers who offer integrated services efficiently.

The Dumpo Junk Removal

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State : NC

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