

TÜV SÜD Safety Gauge

Product safety in the eyes of businesses and consumers



**Add value.
Inspire trust.**

White paper

Abstract

The TÜV SÜD Safety Gauge research is the first of its kind to investigate corporate product safety practices alongside consumer attitudes and experiences in the children's products, food products and consumer electronics sectors. This TÜV SÜD white paper presents the findings of TÜV SÜD's Safety Gauge study conducted in 2012 on consumers' attitudes, experiences and views regarding product safety, and discusses the implications of the study's findings, providing insights for businesses to better understand consumer expectations.

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Introduction

This white paper is based on results from research commissioned by TÜV SÜD. The study was conducted during the third quarter of 2012 by independent market research agency BRDC in order to develop a better understanding of the state

of product safety in selected global industries.

The goal of this study was to assess the business case for producing products that exceed current safety regulations by investigating

both businesses' and consumers' perceptions of product safety and related costs, as well as the measures that each group takes to ensure products that are produced or purchased are safe.

Executive summary of results

Consumers are willing to pay a 16% premium for products that achieve exemplary safety standards, and more than 90% of consumers believe that independent third-party testing is important.

Yet, businesses estimate that they spend 9% of revenue annually on product recalls, and would need to increase production spending by 19% to achieve exemplary levels of product safety. Further, only 55% of manufacturers and 41% of distributors currently undertake independent third-party testing for product safety.

What can businesses learn from the TÜV SÜD Safety Gauge study?

- The results of this study clearly demonstrate that the importance

of product safety has grown significantly in the last 5 years, and will continue to grow in importance during the coming 5 years, especially for consumer electronics where significant growth is expected. Consumers are not only placing increased value on the safety of the products that they purchase, but are also becoming more knowledgeable about how to identify products that are more likely to be safe.

- These findings represent a significant opportunity for businesses to leverage consumers' interest in safe products by making product safety a priority. The additional investment by businesses to increase the safety of their products can effectively reduce the cost associated with product

recalls, and also increase consumer loyalty to their brands, thereby supporting efforts to increase market share.

- Products that meet independent certified standards are more likely to be favored by consumers who are aware of safety certifications and labels, and who place importance on independent certification. TÜV SÜD can support efforts to select a suitable safety certification scheme and testing that demonstrate your company's ongoing commitment to safe products and practices.

Safety gauge study background

Study research was conducted among consumers and business professionals in top-tier cities in the U.S., the United Kingdom, China, India and Japan. These five markets represent almost half (48%) of worldwide Gross Domestic Product (USD 62.6 trillion)*.

Data was collected through online surveys as well as through consumer and business panel discussions. More than 5000 consumers and 500 management-level employees in manufacturing, distribution and retail companies contributed data to the Safety Gauge study.

The research was conducted across the following product segments:

- Food products: Fresh produce, meat, fish, processed food, etc.
- Consumer electronics: TVs, laptops, mobile phones, etc.
- Children's products: Toys, baby bottles, children's clothing, etc.

The consumer sample is nationally representative of consumers between 18-50 years of age and includes decision makers purchasing consumer electronics, food & beverages, and children's clothing and related products.

The business sample includes management-level employees positioned to provide an informed perspective on product safety-related issues within their organization. Participants come from companies in the consumer electronics, food & beverages, and children's clothing and related products industries.

Due to rounding, percentages in this paper may not add up to 100% and may have up to 1% discrepancy.

*Source: UN

Key figures at a glance

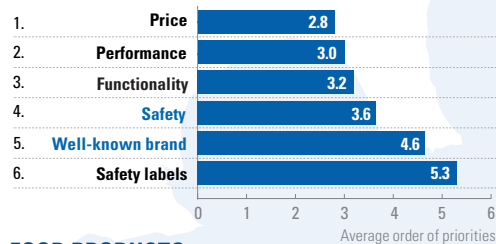
THE ECONOMICS OF PRODUCT SAFETY

Independent global research suggests rising consumer demand and damaging annual recall costs mean investing in product safety can not only improve consumer wellbeing but drive commercial success.

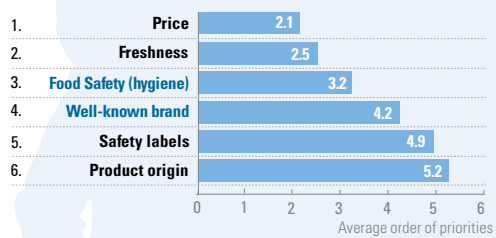
RISING CONSUMER DEMAND

SAFETY ABOVE BRAND IN PURCHASING CRITERIA

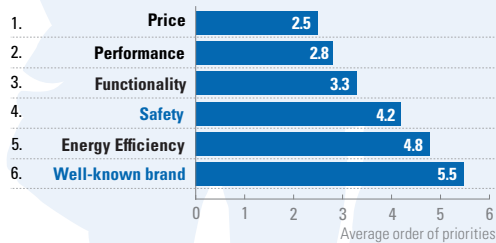
CHILDREN'S PRODUCTS



FOOD PRODUCTS



CONSUMER ELECTRONICS



16% Premium

77 per cent of consumers are willing to pay an average premium of 16 per cent over standard prices for products that achieve exemplary safety standards

63%
of consumers say product safety is very important to them now

BUSINESS EXPENSE

FREQUENCY OF PRODUCT RECALLS

Companies have conducted an average of 9.8 product recalls in the last five years

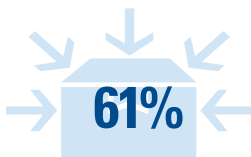
COST OF PRODUCT RECALLS

Product recalls in the last five years have cost companies on average 9 per cent of revenue

PRODUCTION COSTS

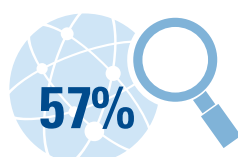
Companies estimate they will need to increase production costs by 19 per cent to achieve the highest safety standards available

STATE OF SAFETY



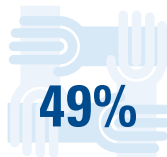
VARYING STANDARDS

61 per cent of businesses indicate that safety standards of their products vary from market-to-market depending on import requirements



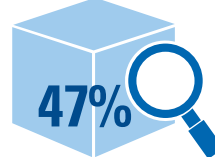
LIMITED TRACEABILITY

57 per cent of organisations are unable to trace all components in their products throughout their supply chain



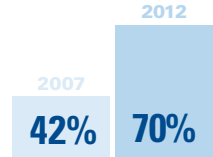
MEETING REQUIREMENTS

Just 49 per cent of businesses can guarantee that their entire supply chain meets product safety requirements



SAFETY AN ISSUE

47 per cent of businesses believe product safety is a serious issue in their industry



STANDARDS IMPROVING

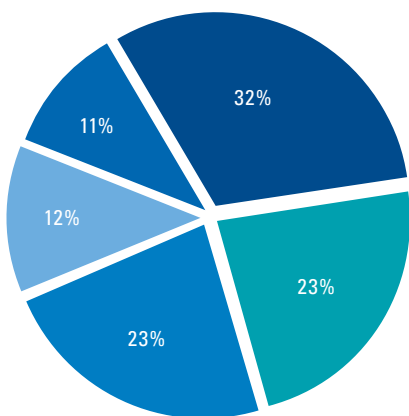
70 per cent of businesses believe companies now exceed government regulations, up from 42 per cent in 2007.

State of safety

Overall, concern among consumers regarding the safety of products is increasing. The Safety Gauge study reveals that 63% of consumers now believe that product safety is very important, up from 47% of consumers in 2007. Further, consumer study participants predict that product safety will be very important to 68% of consumers by 2017. Detailed results from the Safety Gauge study on the state of product safety are addressed in the following sections.

A. Consumers experiencing unsafe products in the last five years

PERCENTAGE OF CONSUMER STUDY PARTICIPANTS WHO EXPERIENCED UNSAFE PRODUCTS.



- 3x per year or more
- Once every 2 - 5 years
- 1 - 2x per year
- Never
- Don't know

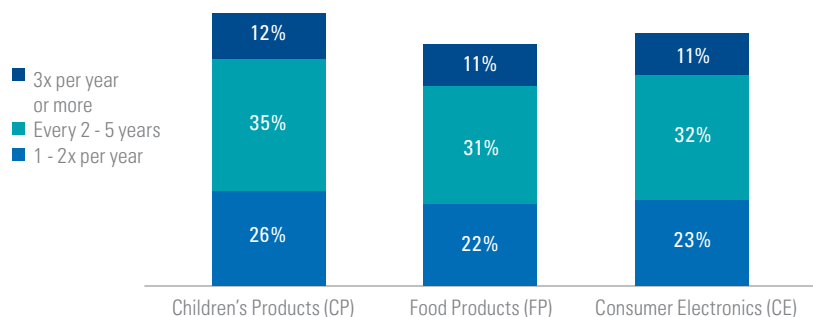
Base: All consumer study participants
TOTAL = 5268
Question: How often do you experience a product safety issue?

Source: TÜV SÜD Safety Gauge 2012

Despite the rising importance of safety, 51% of consumer study participants report having an experience with an unsafe product within the past five years. 24% report experiencing cuts from sharp edges of products. 21% report having experienced allergic reactions to substances or ingredients not known to be used in products, while 18% report injuries sustained as a result of faulty products. Among consumer study participants, the average frequency of an unsafe product experience is slightly more than once a year.

Compared across industry sectors, children's products were the source of an unsafe experience for 60% of consumer study participants, followed by consumer electronics (51% of consumer study participants) and food products (49%). In addition, among consumer study participants who experienced an unsafe product 1-2 times per year, children's products were the source of that unsafe experience 26% of the time.

SECTOR BREAKDOWN PERCENTAGE OF CONSUMER STUDY PARTICIPANTS WHO EXPERIENCED UNSAFE PRODUCTS.



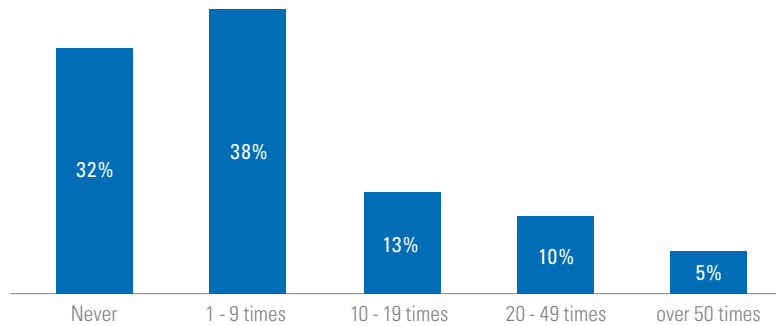
Base: All consumer study participants
Sample sizes in aggregate and by product category:
TOTAL = CP: 3031, FP: 4701, CE: 4499
Question: How often do you experience a product safety issue?

Source: TÜV SÜD Safety Gauge 2012

B. Frequency of recalls by businesses

Consumer reports of experiences with unsafe products appear to align with data from businesses themselves. According to management study participants, 66% of businesses have had at least one recall during the previous 5 years, with an average of 2 recalls annually. However, 29% of management study participants report that their companies recalled unsafe products more than 9 times during the previous 5 year period, with 15% recalling unsafe products more than 20 times during the same period. Only 32% of management study participants indicate that their companies did not recall any products during the previous 5 years.

PERCENTAGE OF PRODUCT RECALLS BY MANAGEMENT STUDY PARTICIPANTS



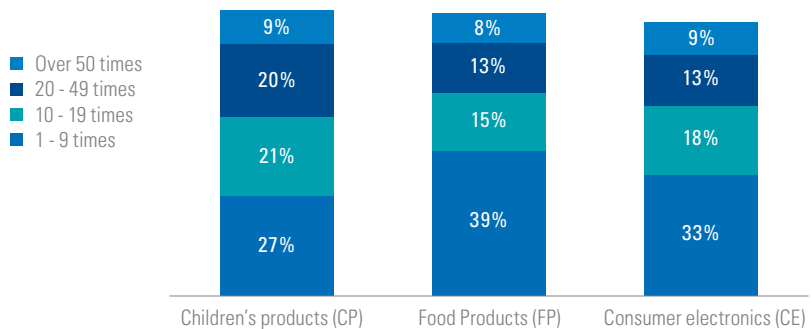
Base: All management study participants
TOTAL = 520

Question: Has your company experienced product safety recalls in the last five years? How many times?

Source: TÜV SÜD Safety Gauge 2012

Compared across industry sectors, children's products were the subject of product safety recalls for 76% of management study participants, with 28% of participants recalling unsafe products more than 20 times during the previous 5 year period. This compares with recalls for food products (75%), with 21% recalling unsafe products more than 20 times during the previous 5 years, and consumer electronics (73%), with 22% recalling unsafe products more than 20 times during the previous 5 years.

SECTOR BREAKDOWN PERCENTAGE OF PRODUCT RECALLS BY MANAGEMENT STUDY PARTICIPANTS



Base: All management study participants

Sample sizes in aggregate and by product category:

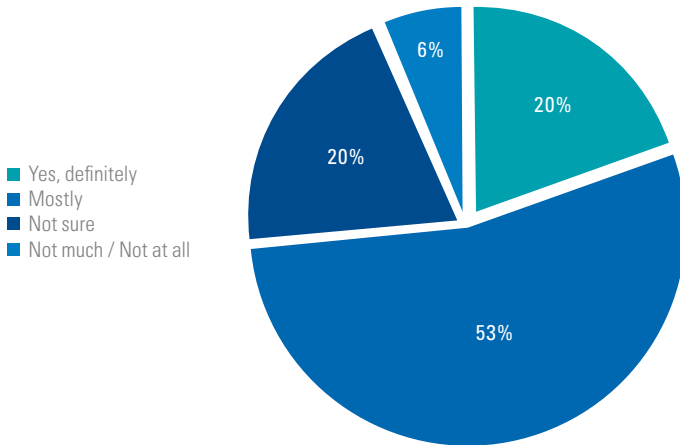
TOTAL = CP: 204, FP: 309, CE: 231

Question: Has your company experienced product safety recalls in the last five years? How many times?

Source: TÜV SÜD Safety Gauge 2012

C. Are businesses doing enough for product safety?

PERCENTAGE OF CONSUMER STUDY PARTICIPANTS WHO BELIEVE THAT COMPANIES ARE DOING ENOUGH FOR PRODUCT SAFETY

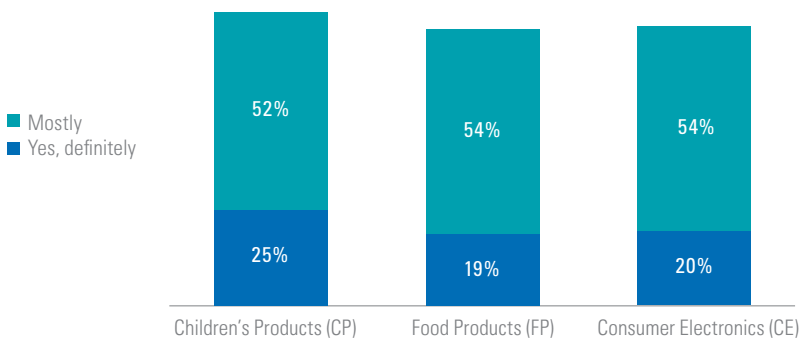


Base: All consumer study participants
 TOTAL = 5268
 Question: Do you agree that companies are doing enough to ensure the safety of their products?

Source: TÜV SÜD Safety Gauge 2012

Although 51% of consumer study participants report experiencing unsafe products and 66% of management study participants initiating at least one product recall in the past 5 years, more than half (74%) of consumer study participants agree that businesses are doing enough to ensure the safety of products.

SECTOR BREAKDOWN PERCENTAGE OF CONSUMER STUDY PARTICIPANTS WHO BELIEVE THAT COMPANIES ARE DOING ENOUGH FOR PRODUCT SAFETY



Base: All consumer study participants
 Sample sizes in aggregate and by product category:
 TOTAL = CP: 3031, FP: 4701, CE: 4499
 Question: Do you agree that companies are doing enough to ensure the safety of their products?

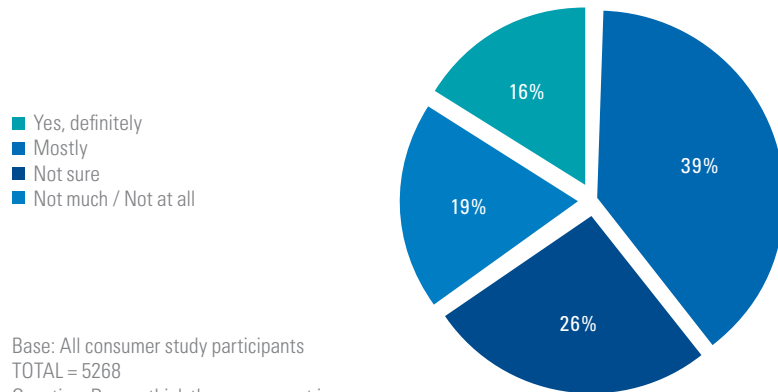
Source: TÜV SÜD Safety Gauge 2012

Even though children's products were the source of the greatest percentage of unsafe experiences for consumers (60%) and the subject of recalls by the greatest percentage of companies (60%), the majority (78%) of consumer study participants also believe that companies are doing enough to ensure the safety of children's products. Consumer electronics ranks second at 74%, followed by food products at 73%.

D. Are governments doing enough for product safety?

In contrast to consumer perceptions regarding businesses' commitment to product safety, only slightly more than half (55%) of consumer study participants believe that governments are definitely or mostly doing enough to ensure the safety of products sold in the market. 19% of participants believe that their government does little or nothing to ensure product safety. And only 42% of consumer study participants believe that penalties imposed by government authorities on companies that fail to meet product safety standards are definitely or mostly strict enough.

PERCENTAGE OF CONSUMER STUDY PARTICIPANTS WHO BELIEVE THE GOVERNMENT IS DOING ENOUGH

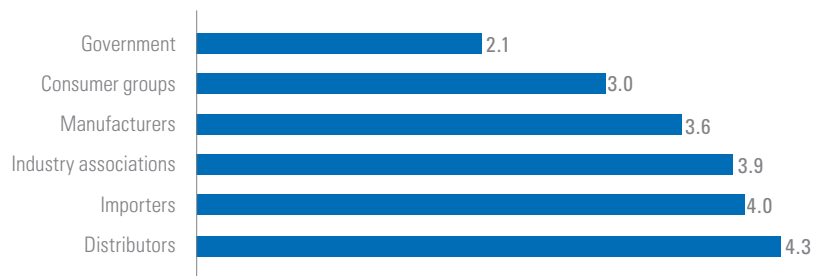


Base: All consumer study participants
TOTAL = 5268
Question: Do you think the government is doing enough to ensure the safety of products sold in the market?

Source: TÜV SÜD Safety Gauge 2012

CONSUMER STUDY PARTICIPANTS' RANKING OF WHO SHOULD BE TAKING LEAD ON PRODUCT SAFETY

*rank points based on weighted score – rank point closer to 1.0 means higher rank

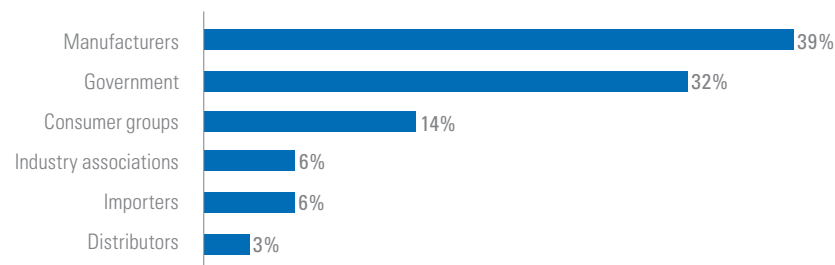


Base: All consumer study participants
TOTAL = 5268
Question: In order of priority, who do you think should be taking the lead on product safety in your country, e.g. setting standards?

Source: TÜV SÜD Safety Gauge 2012

Both consumer and management study participants rank governments and regulatory authorities as either the first or second choice among those parties responsible for ensuring product safety. Consumer study participants generally expect governments and regulatory authorities to take the lead ahead of themselves in ensuring the safety of products. However, 39% of management study participants indicate that business, not government, should take the lead in ensuring the safety of products.

MANAGEMENT STUDY PARTICIPANTS' RANKING OF WHO SHOULD BE TAKING LEAD ON PRODUCT SAFETY



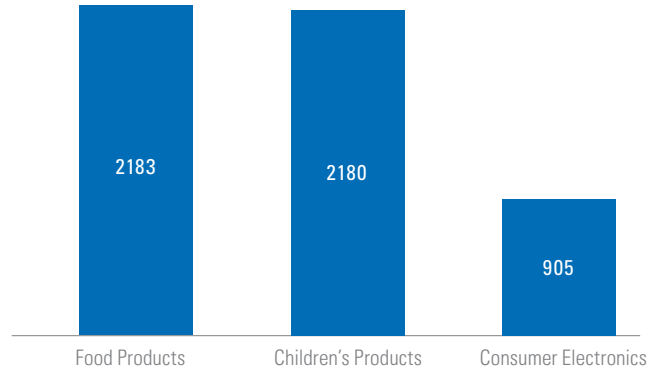
Base: All management study participants
TOTAL = 520
Question: Who do you think should be taking the lead on product safety in your country?

Source: TÜV SÜD Safety Gauge 2012

E. Relative safety ranking of sectors

2183 consumer study participants ranked the food product industry as the safest sector. This is closely followed by the children's product industry (ranked first by 2180 participants), and the consumer electronics industry (ranked first by 905 participants). Japan ranks as the safest country of origin across all three industry sectors among both consumer and management study participants, while Northern Europe ranks as second safest country of origin for food and children's products. Management study participants rank China as the second safest country of origin for consumer electronics, while consumer study participants rank Northern Europe as the second safest country of origin for consumer electronics.

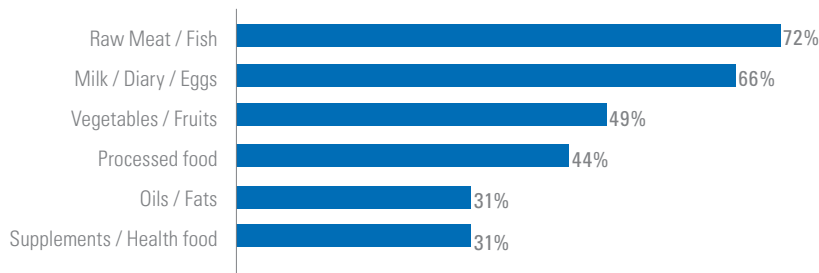
NUMBER OF CONSUMER STUDY PARTICIPANTS WHO RANKED SECTORS AS SAFEST



Base: All consumer study participants
TOTAL = 5268
Question: In your opinion, which of the following products are the safest?

Source: TÜV SÜD Safety Gauge 2012

PERCENTAGE OF CONSUMER STUDY PARTICIPANTS FOR FOOD PRODUCTS OF MOST CONCERN



Base: Consumer study participants who were involved in food product purchase decision during the past 12 months
TOTAL = 4701
Question: Which of the following food products are you most concerned about when it comes to food safety?

Source: TÜV SÜD Safety Gauge 2012

Taking a closer look at the safest sector, the study finds that raw meat and fish topped the list of food groups of greatest safety concern for 72% of consumer study participants. Dairy, milk and egg products ranked highest in safety concern for 66% of participants, while fresh produce, including fruits and vegetables, ranked highest for 49% of participants. Even food supplements and health foods ranked highest in safety concern for 31% of participants.

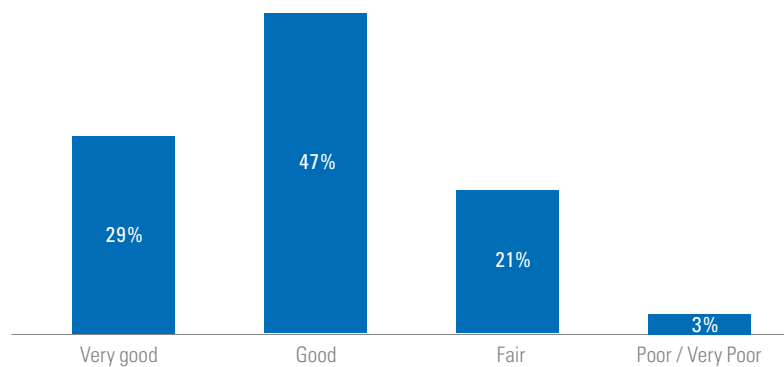
Role of product safety in consumers' purchase decisions

On the whole, consumers are knowledgeable when it comes to identifying products that are safe. The Safety Gauge study reveals that 85% of consumer study participants are aware of safety labels, with 74% able to recognize at least one safety label. Detailed results from the Safety Gauge study on the role of product safety in consumers' purchase decisions are addressed in the following sections.

A. Consumers' understanding of product safety

Regarding their level of understanding of product safety, most (97%) consumer study participants report that they have at least fair understanding, with more than half (76%) reporting a good or very good understanding. Only 3% of participants report a poor or very poor understanding of product safety.

PERCENTAGE OF CONSUMER STUDY PARTICIPANTS ON THEIR UNDERSTANDING OF PRODUCT SAFETY



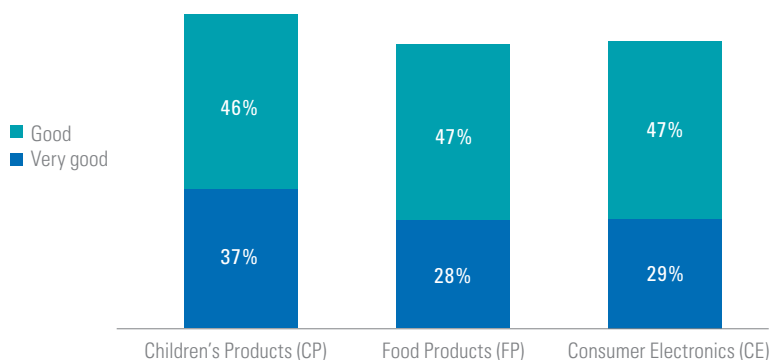
Base: All consumer study participants
TOTAL = 5268

Question: When you buy a product, how would you rate your understanding of how safe the product is?

Source: TÜV SÜD Safety Gauge 2012

Compared across industry sectors, 83% of consumer study participants report either a good or very good understanding of product safety issues associated with children's products, followed by 76% for consumer electronics and 75% for food products. Only 1% of consumer study participants report a poor or very poor understanding of children's product safety issues.

SECTOR BREAKDOWN PERCENTAGE OF CONSUMER STUDY PARTICIPANTS ON THEIR UNDERSTANDING OF PRODUCT SAFETY



Base: All consumer study participants

Sample sizes in aggregate and by product category:

TOTAL = CP: 3031, FP: 4701, CE: 4499

Question: When you buy a product, how would you rate your understanding of how safe the product is?

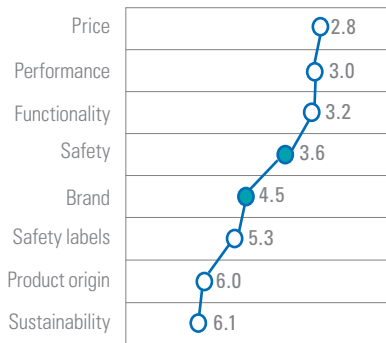
Source: TÜV SÜD Safety Gauge 2012

B. Consumers' ranking of purchasing criteria

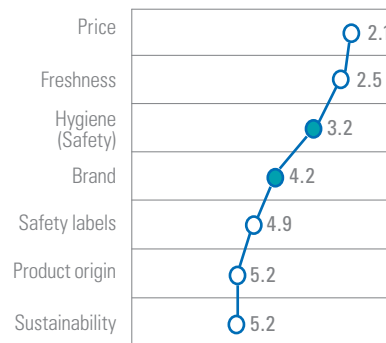
RANKING OF FACTORS THAT INFLUENCE PURCHASE DECISIONS BY CONSUMER STUDY PARTICIPANTS

*rank points based on weighted score – rank point closer to 1.0 means higher rank

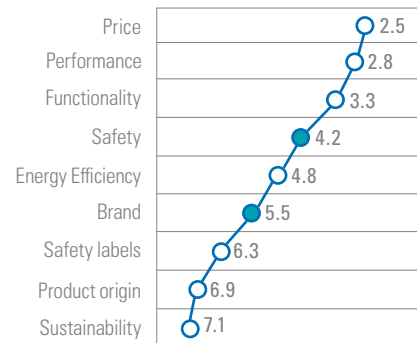
CHILDREN'S PRODUCTS (CP)



FOOD PRODUCTS (FP)



CONSUMER ELECTRONICS (CE)



Base: All consumer study participants

Sample sizes in aggregate and by product category: TOTAL = CP: 3031, FP: 4701, CE: 4499

Question: Rank the factors below in order of importance when purchasing

Source: TÜV SÜD Safety Gauge 2012

The study also measured the criteria of greatest importance to consumer study participants in their evaluation of the products they purchase.

Consumer study participants ranked price as the most important criterion in purchasing products across all three sectors. Price is followed by performance and functionality for consumer electronics and children's products, while consumer study

participants rank freshness as the second most important criterion for food products.

As an individual criterion, safety had a weighted average of 3.6, 3.2 and 4.2 for children's products, food products and consumer electronics respectively. Safety was ranked ahead of brand for all three sectors with a 1.0 and 0.9 difference in

weighted average for food and children's products respectively, and a 1.3 difference in weighted average for consumer electronics. Other factors such as product origin and sustainability were of the least importance to consumer study participants

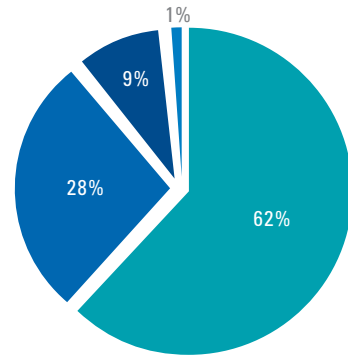
C. Importance of third-party testing to consumers

Consumer study participants are clear about the importance of third-party testing and certification of products in their assessment of the safety of products and in their purchasing decisions. 90% of consumer study participants report that third-party certification is either very important or quite important for any products sold in the market. Additionally, more than half (83%) of consumer study participants report that third-party certifications have some or a lot of credibility.

PERCENTAGE OF CONSUMER STUDY PARTICIPANTS ON IMPORTANCE OF INDEPENDENT THIRD-PARTY TESTING

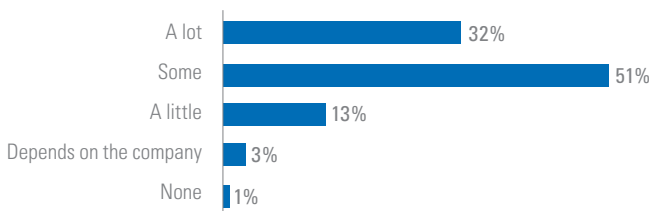
- Very important
- Quite important
- Sometimes important / Sometimes not
- Not that important / Not at all

Base: All consumer study participants
TOTAL = 5268
Question: In your opinion, how important is independent third-party testing for products before they are sold in the market?



Source: TÜV SÜD Safety Gauge 2012

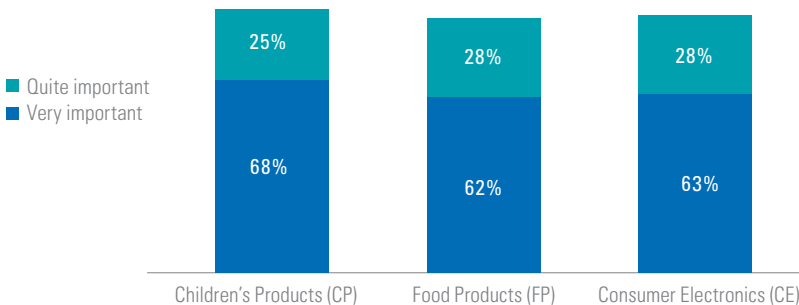
PERCENTAGE OF CONSUMER STUDY PARTICIPANTS ON CREDIBILITY OF INDEPENDENT THIRD-PARTY TESTING



Base: Consumer study participants who felt third-party testing is very or quite important
TOTAL = 4749
Question: In your opinion, how much credibility do independent third-party safety certifications have?

Source: TÜV SÜD Safety Gauge 2012

SECTOR BREAKDOWN PERCENTAGE OF CONSUMER STUDY PARTICIPANTS ON IMPORTANCE OF INDEPENDENT THIRD-PARTY TESTING



Base: All consumer study participants
Sample sizes in aggregate and by product category:
TOTAL = CP: 3031, FP: 4701, CE: 4499
Question: In your opinion, how important is independent third-party testing for products before they are sold in the market?

Source: TÜV SÜD Safety Gauge 2012

Compared across industry sectors, 68% of consumer study participants report that independent third-party testing is very important for children's products sold in the market, followed by 63% of participants for consumer electronics and 62% for food products.

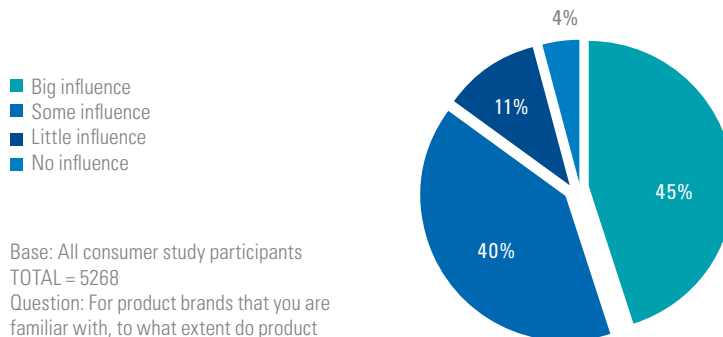
D. Does product safety certifications help branding?

For most consumers, the presence of product safety certification is a strong indication of product safety, regardless of brand familiarity or platform of sale. 85% of consumer study participants say that safety certifications would have some influence or a big influence on their preference for known brands. 93% of consumer study participants report safety certification having big or some influence on their preference for children's products, followed by 85% of participants for food products and 81% for consumer electronics.

When it comes to unfamiliar product brands, consumers report that product safety labels are important in providing assurances regarding a product's safety. More than half (62%) of consumer study participants indicate that they look at product safety labels all or most of the time when purchasing unfamiliar product brands. Only 8% of participants report that they never look at the safety label of an unfamiliar product brand before deciding to buy it. Even though the digital age has made online shopping convenient, more than half (57%) of consumer study participants expressed greater concerns about the safety of products purchased online than those purchased through retail stores.

However, consumer study participants also report that they are more likely purchase products online that are accompanied by product safety certifications. 65% of consumer study participants indicate that they are a lot or somewhat more likely to purchase a product online if the website states that a product has been independently tested for product safety.

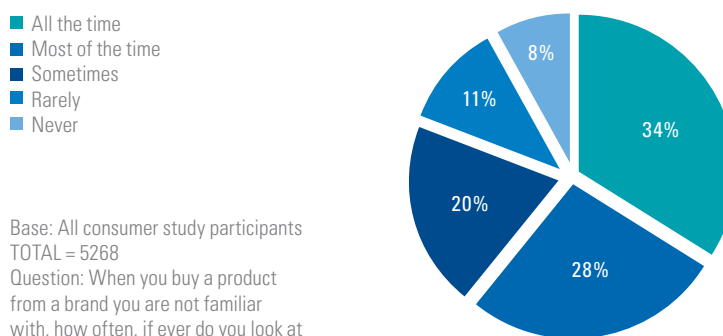
PERCENTAGE OF CONSUMER STUDY PARTICIPANTS ON INFLUENCE OF PRODUCT SAFETY CERTIFICATIONS ON KNOWN BRANDS



Base: All consumer study participants
TOTAL = 5268
Question: For product brands that you are familiar with, to what extent do product safety certifications influence your preference for this brand over others?

Source: TÜV SÜD Safety Gauge 2012

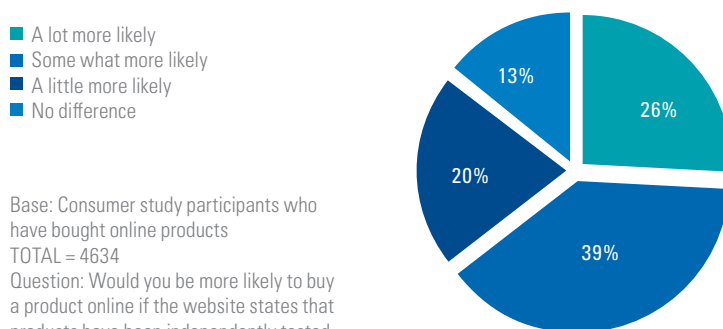
PERCENTAGE OF CONSUMER STUDY PARTICIPANTS ON FREQUENCY OF CHECKING PRODUCT SAFETY CERTIFICATIONS IN UNKNOWN BRANDS



Base: All consumer study participants
TOTAL = 5268
Question: When you buy a product from a brand you are not familiar with, how often, if ever do you look at product safety labels on the packaging before deciding to buy it?

Source: TÜV SÜD Safety Gauge 2012

PERCENTAGE OF CONSUMER STUDY PARTICIPANTS ON LIKELIHOOD TO BUY ONLINE PRODUCTS WITH PRODUCT SAFETY CERTIFICATIONS



Base: Consumer study participants who have bought online products
TOTAL = 4634
Question: Would you be more likely to buy a product online if the website states that products have been independently tested for product safety?

Source: TÜV SÜD Safety Gauge 2012

Businesses in evolving the safety of their products

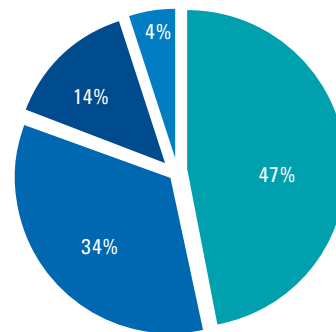
For businesses, data from the TÜV SÜD Safety Gauge study demonstrates that significant improvements have been made to product safety practices over the last five years. More than twice (2007: 19%, 2012: 41%) as many management study participants report that their companies significantly exceeded product safety requirements in 2012 compared with 5 years earlier, and predict that even more (57%) companies will significantly exceed minimum product safety standards in the next 5 years. Detailed results from the Safety Gauge study on businesses in improving the safety of their products are addressed in the following sections.

A. Businesses on product safety in their industries

Although there is an increase in the number of companies who are significantly exceeding product safety requirements, 81% of management study participants report that there are a lot or some product safety issues in their industries in general.

PERCENTAGE OF MANAGEMENT STUDY PARTICIPANTS WHO BELIEVE PRODUCT SAFETY IS AN ISSUE IN THE INDUSTRY

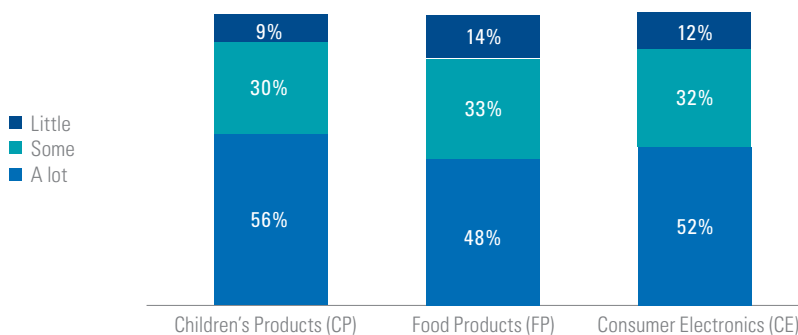
- A lot
- Some
- Little
- None at all



Base: All management study participants
TOTAL = 520
Question: Do you believe product safety is an issue in your industry in general?

Source: TÜV SÜD Safety Gauge 2012

SECTOR BREAKDOWN PERCENTAGE OF MANAGEMENT STUDY PARTICIPANTS WHO BELIEVE PRODUCT SAFETY IS AN ISSUE IN THE INDUSTRY



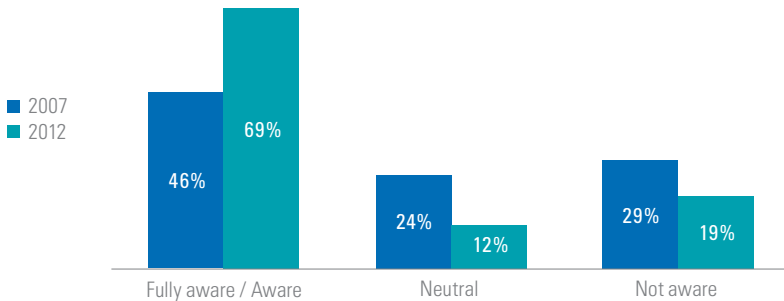
Base: All management study participants
Sample sizes in aggregate and by product category:
TOTAL = CP: 204, FP: 309, CE: 231
Question: Do you believe product safety is an issue in your industry in general?

Source: TÜV SÜD Safety Gauge 2012

Compared across industry sectors, 86% of management study participants believe there are a lot or some product safety issues regarding children's products. This is followed by consumer electronics (84% of management study participants) and food products (81% of management study participants).

B. Businesses' awareness of product safety practices in their industries

PERCENTAGE OF MANAGEMENT STUDY PARTICIPANTS WHO ARE AWARE OF PRODUCT SAFETY PRACTICES IN THE INDUSTRY



Base: All management study participants
TOTAL = 520

Question: How would you describe your company's awareness of these practices today?

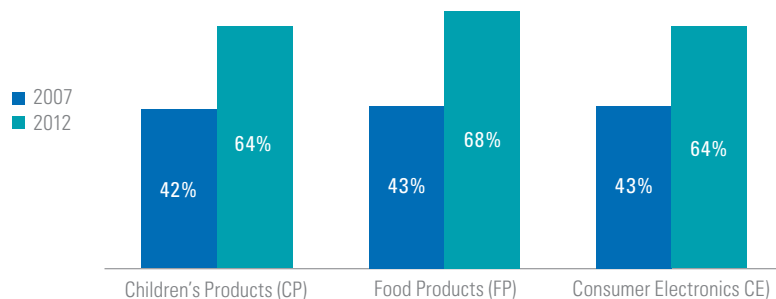
Question: And when you think of 5 years ago, how would you rate your company's awareness at that time?

Source: TÜV SÜD Safety Gauge 2012

Awareness of product safety practices in the industry has increased over the past 5 years. 69% of management study participants report being aware of product safety practices in their industries today, compared with just 46% 5 years ago. Percentages of management study participants who were either neutral or unaware of product safety practices have also decreased by 12% and 10% respectively.

Among industry groups, food products have seen the highest (25%) increase in awareness of product safety practices. It is also the industry sector for which most (68%) management study participants report awareness of product safety practices. Awareness of product safety practices for children's products and consumer electronics has increased 22% and 20% respectively, with 64% of management study participants reporting awareness of product safety practices in these two industries.

SECTOR BREAKDOWN PERCENTAGE OF MANAGEMENT STUDY PARTICIPANTS WHO ARE AWARE OF PRODUCT SAFETY PRACTICES IN THE INDUSTRY



Base: All management study participants

Sample sizes in aggregate and by product category:
TOTAL = CP: 204, FP: 309, CE: 231

Question: How would you describe your company's awareness of these practices today?

Question: And when you think of 5 years ago, how would you rate your company's awareness at that time?

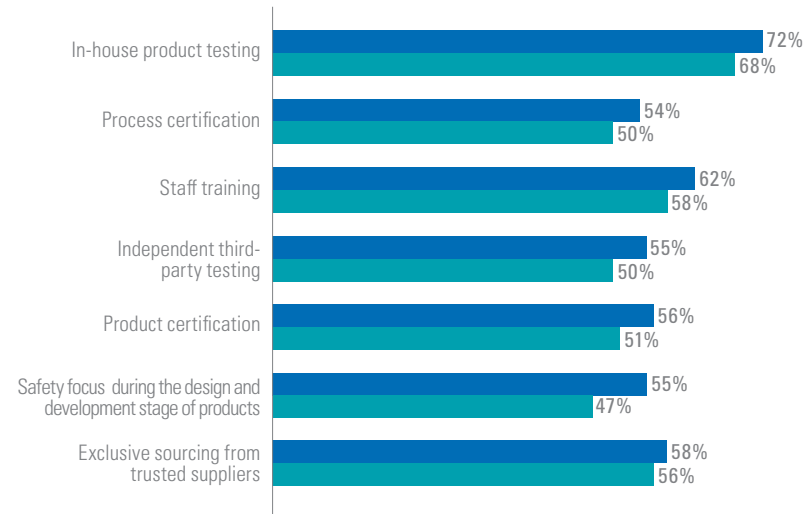
Base = CP: 204, FP: 231, CE: 231

Source: TÜV SÜD Safety Gauge 2012

C. Gaps between industry and corporate safety practices

When comparing product safety practices in their industry against corporate safety practices, 8% of management study participants report that the biggest safety gap exists during the product design and development stages. Gaps between industry and corporate safety practices in the area of independent third-party testing were identified by 6% of participants, and in the area of product certification by 5%.

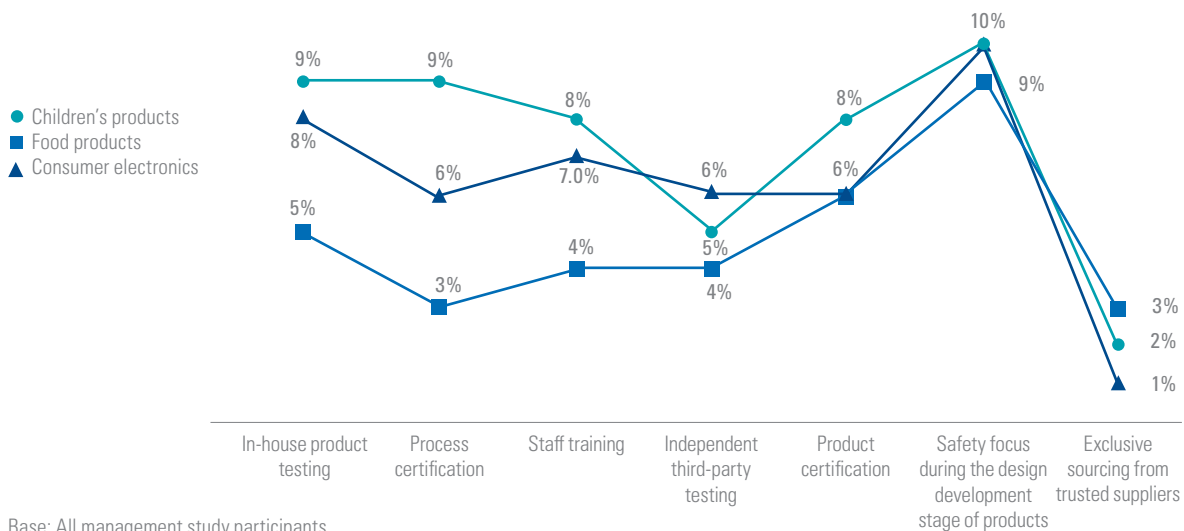
PERCENTAGE OF MANAGEMENT STUDY PARTICIPANTS ON THE GAPS BETWEEN INDUSTRY AND COMPANY SAFETY PRACTICES



Base: All management study participants
 TOTAL = 520
 Question: Which of the following are common practices in your industry?
 Question: Which of these is your company currently undertaking?

Source: TÜV SÜD Safety Gauge 2012

SECTOR BREAKDOWN PERCENTAGE OF MANAGEMENT STUDY PARTICIPANTS ON THE GAPS BETWEEN INDUSTRY AND COMPANY SAFETY PRACTICES



Base: All management study participants
 Sample sizes in aggregate and by product category: TOTAL = CP: 204, FP: 309, CE: 231
 Question: Which of the following are common practices in your industry?
 Question: Which of these is your company currently undertaking?

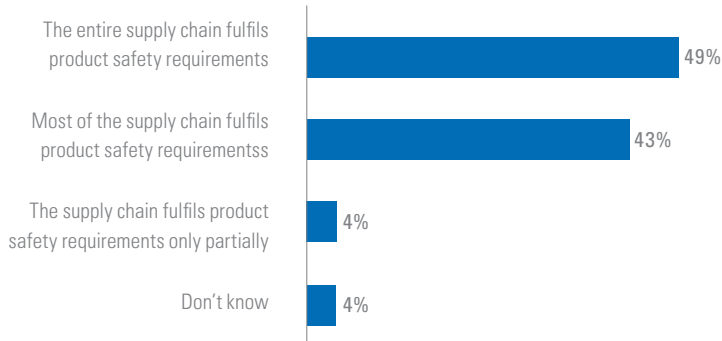
Source: TÜV SÜD Safety Gauge 2012

In evaluating gaps between industry and corporate safety practices for the seven product safety practices explored in this study, children's products evidenced the largest

number of the biggest gaps (5 out of 7 practices), while food products evidenced the largest number of the smallest gaps (5 out of 7).

D. Businesses' supply chain compliance and traceability

PERCENTAGE OF MANAGEMENT STUDY PARTICIPANTS ON EXTENT OF SUPPLY CHAIN MEETING PRODUCT SAFETY REQUIREMENTS



Base: All management study participants
TOTAL = 520

Question: To what extent can your company ensure that the entire global supply chain of your products meets product safety requirements? Would you be able to guarantee that...

Source: TÜV SÜD Safety Gauge 2012

PERCENTAGE OF MANAGEMENT STUDY PARTICIPANTS ON EXTENT OF SUPPLY CHAIN TRACEABILITY



Base: All management study participants
TOTAL = 520

Question: Is your company able to trace every component of your products throughout the supply chain?

Source: TÜV SÜD Safety Gauge 2012

93% of management study participants report that most or all of their supply chain partners fulfill product safety requirements, with only 4% reporting partial compliance. 59% of management study participants report that children's products supply chains fulfill product safety requirements, followed

by consumer electronics (56% of management study participants) and food products (52% of participants).

The modern supply chain has grown in complexity, and businesses today are seeking supply chain efficiencies not only through their direct suppliers but also through parties further

down the supply chain. This makes effective supply chain management even more challenging. Despite these challenges, 91% of management study participants indicate that they are able to trace throughout the supply chain most or all of the components used in their products.

E. Sourcing standards employed by businesses

PERCENTAGE OF MANAGEMENT STUDY PARTICIPANTS ON PRODUCT SAFETY PRACTICES WHEN IMPORTING



Base: All management study participants
TOTAL = 520

Question: Which of the following measures do you put in place to ensure product safety when you source goods in these countries?

Source: TÜV SÜD Safety Gauge 2012

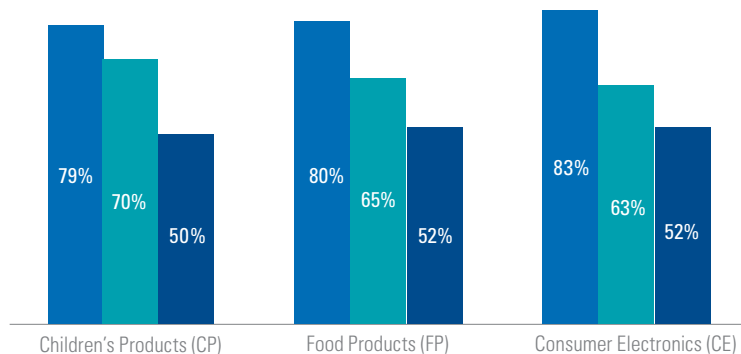
When sourcing abroad, most (77%) of the management study participants cite the use of preferred suppliers to ensure product safety. 61% of participants use on-site visits, while 50% use third-party inspectors.

It is interesting to note that 61% of management study participants indicate that, when exporting products to different countries or regions, their product safety standards vary depending on the destination country. Only 29% report using the same product safety standards regardless of the destination country.

Compared across industry sectors, 83% of management study participants use preferred suppliers to ensure the safety of consumer electronics, while 70% of participants employ on-site visits to ensure the safety of children's products. In

addition, 65% of management study participants indicate that, when it comes to exporting consumer electronics and children's products to different countries or regions, product safety standards vary depending on the destination country.

SECTOR BREAKDOWN PERCENTAGE OF MANAGEMENT STUDY PARTICIPANTS ON PRODUCT SAFETY PRACTICES WHEN IMPORTING



Base: All management study participants
Sample sizes in aggregate and by product category:
TOTAL = CP: 204, FP: 309, CE: 231

Question: Which of the following measures do you put in place to ensure product safety when you source goods in these countries?

■ Using preferred suppliers
■ On-site visits
■ Third-party inspections

Source: TÜV SÜD Safety Gauge 2012

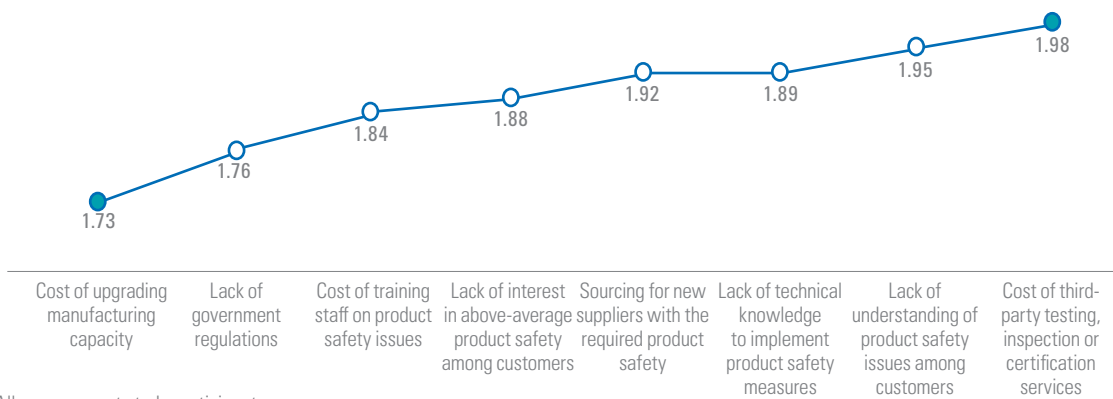
Real cost to achieve truly safe products

Management study participants report that their companies spend an average of 13% of total production-related costs on product safety measures, with 17% of participants reporting product safety expenditures equaling more than 20% of total production costs. Detailed results from the Safety Gauge study on the real cost to achieve safe products are addressed in the following sections.

A. Challenges businesses face in improving product safety

PERCENTAGE OF MANAGEMENT STUDY PARTICIPANTS ON CHALLENGES IN IMPROVING PRODUCT SAFETY

*rank points based on weighted score – rank point closer to 1.0 means higher rank



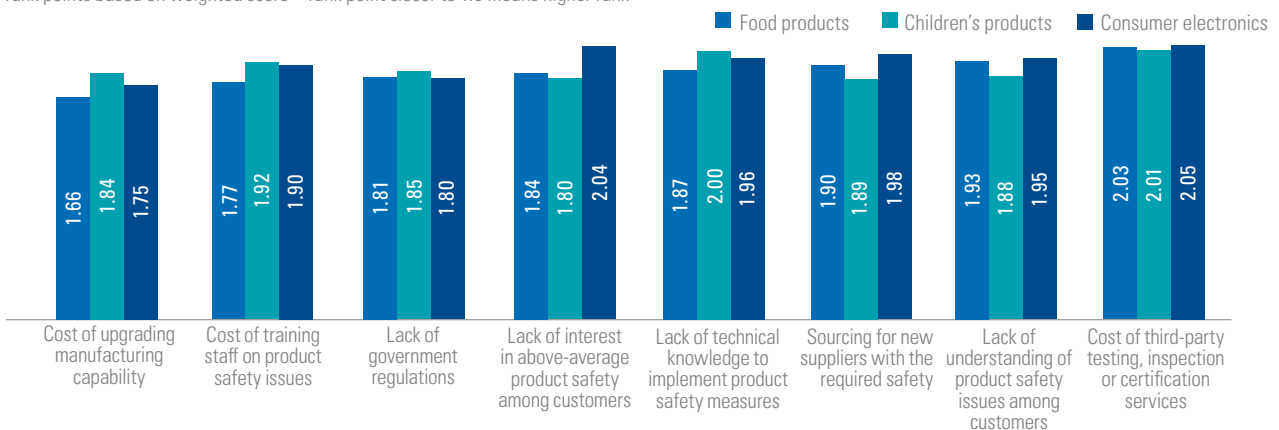
Base: All management study participants
TOTAL = 520

Question: Which of these factors would represent challenges to your company in improving product safety?

Source: TÜV SÜD Safety Gauge 2012

SECTOR BREAKDOWN PERCENTAGE OF MANAGEMENT STUDY PARTICIPANTS ON CHALLENGES IN IMPROVING PRODUCT SAFETY

*rank points based on weighted score – rank point closer to 1.0 means higher rank



Base: All management study participants

Sample sizes in aggregate and by product category: TOTAL = CP: 204, FP: 309, CE: 231

Question: Which of these factors would represent challenges to your company in improving product safety?

Source: TÜV SÜD Safety Gauge 2012

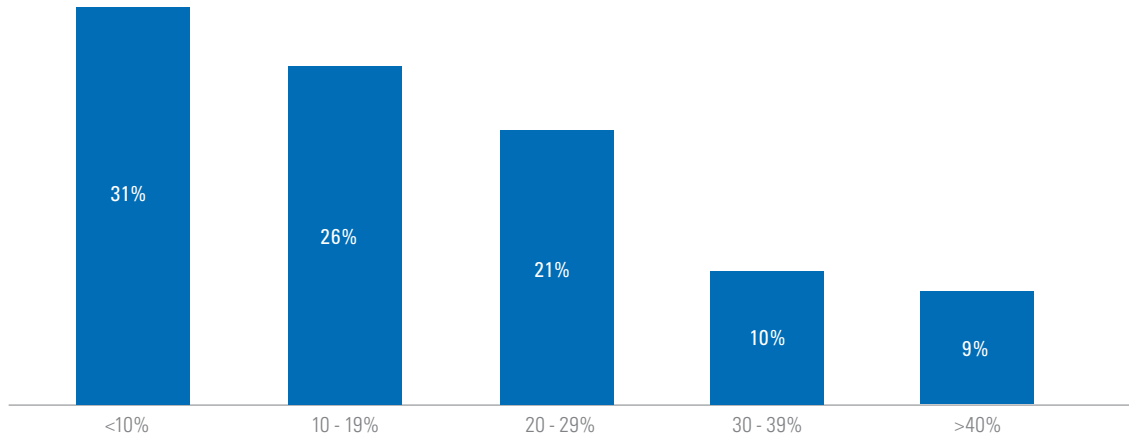
Across all industry sectors, regulations and manufacturing capabilities are the primary challenges to improving product safety. Specifically, management

study participants ranked the costs of upgrading manufacturing capabilities and the lack of government regulations with a weighted average of 1.73 and 1.76 respectively. The

cost of third-party testing, inspection or certification services is the least challenging, with a weighted average ranking of 1.98.

B. Businesses' estimated increase in cost

PERCENTAGE OF EXPECTED INCREASE IN PRODUCTION COSTS TO ACHIEVE BEST SAFETY STANDARD BY MANAGEMENT STUDY PARTICIPANTS



Base: All management study participants
TOTAL = 520

Question: If you were to achieve the best product safety standard for your industry, how much do you think this would increase your production costs (manufacturing) / costs of your purchases (other)?

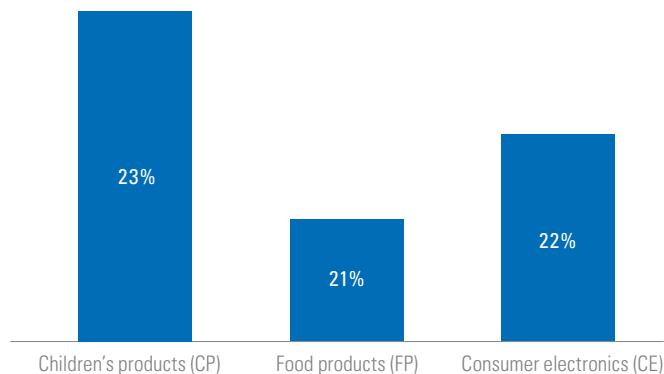
Source: TÜV SÜD Safety Gauge 2012

Management study participants also estimate that their companies would need to increase spending on product safety measures to an average of 19% of total production costs to achieve compliance with the most stringent safety standards, with more than half (57%) of participants reporting a zero to 19% increase. Further, 67% of management study participants cite a customer's willingness to pass along increased costs as a reasonable justification

for increasing product safety expenditures, while 56% would increase product safety expenditures to demonstrate safety leadership in their respective industries.

Compared across industry sectors, children's products has the highest (23%) projected percentage increase in total production costs, followed by consumer electronics (22%) and food products (21%).

SECTOR BREAKDOWN PERCENTAGE OF EXPECTED INCREASE IN PRODUCTION COSTS TO ACHIEVE BEST SAFETY STANDARD BY MANAGEMENT STUDY PARTICIPANTS



Base: All management study participants

Sample sizes in aggregate and by product category:

TOTAL = CP: 204, FP: 309, CE: 231

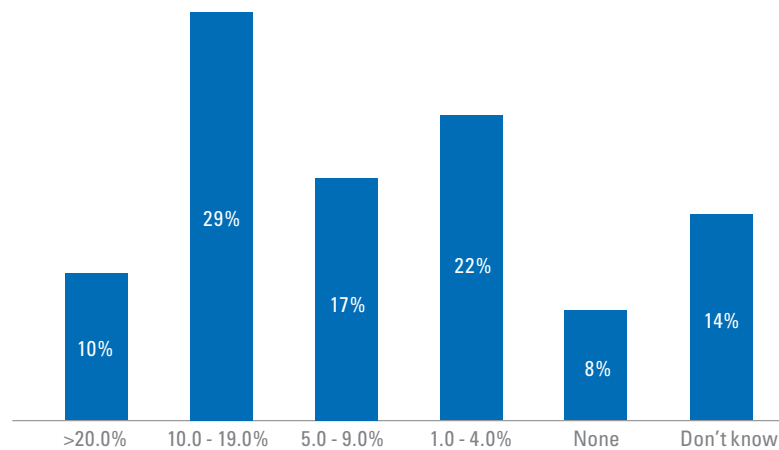
Question: If you were to achieve the best product safety standard for your industry, how much do you think this would increase your production costs (manufacturing) / costs of your purchases (other)?

Source: TÜV SÜD Safety Gauge 2012

C. Businesses' cost of recalls

However, increased expenditures to improve product safety must be compared with the financial impact of product recalls necessitated by unsafe products. Among management study participants, companies expend an average of 9% of annual revenue to cover expenses directly associated with product recalls, with 10% of participants estimating recall expenditures exceeding 20% of revenue.

PERCENTAGE OF ANNUAL INDUSTRY COST OF RECALL AS A PROPORTION OF REVENUE THAT MANAGEMENT STUDY PARTICIPANTS PERCEIVE



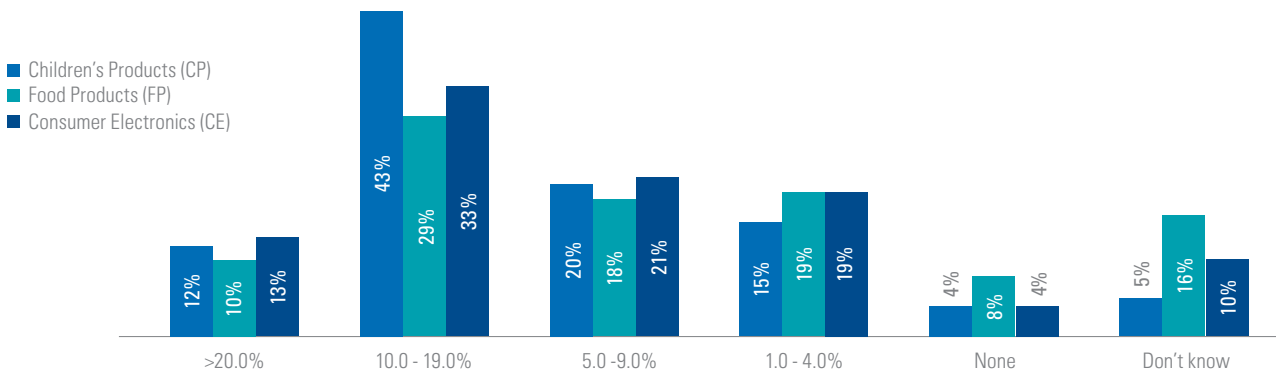
Base: All management study participants

TOTAL = 520

Question: As a proportion of revenue, do you know how much product recalls costs your industry on average each year?

Source: TÜV SÜD Safety Gauge 2012

SECTOR BREAKDOWN PERCENTAGE OF ANNUAL INDUSTRY COST OF RECALL AS A PROPORTION OF REVENUE THAT MANAGEMENT STUDY PARTICIPANTS PERCEIVE



Base: All management study participants

Sample sizes in aggregate and by product category: TOTAL = CP: 204, FP: 309, CE: 231

Question: As a proportion of revenue, do you know how much product recalls costs your industry on average each year?

Source: TÜV SÜD Safety Gauge 2012

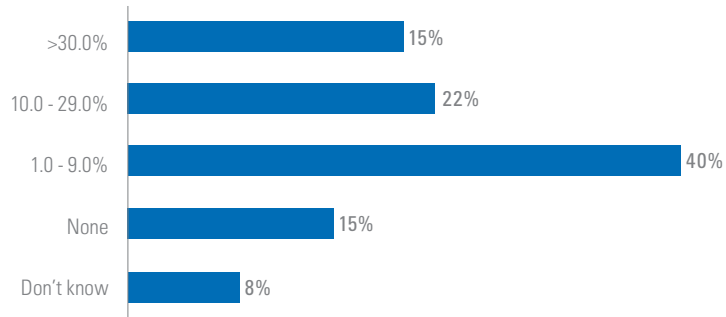
Looking at individual industry sectors, management study participants estimate that the cost of product recalls equal 11% of annual revenue for children's products, followed by 10% of annual revenue for consumer

electronics and 9% of revenue for food products. This data appears to support increased production expenditures to ensure product safety and to reduce the costs associated with product recalls.

D. Consumers' willingness to pay a premium

Importantly, consumers appear to be willing to pay a premium price for products whose safety has been independently verified. Among consumer study participants, products that have been verified by a credible, independent third-party as exceeding applicable government safety standards would command an average of 16% price premium over similar products. About 15% of participants would be willing to pay a premium of 30% or more for verified safe products, while 15% would be unwilling to pay any premium.

PERCENTAGE OF PREMIUM CONSUMER STUDY PARTICIPANTS ARE WILLING TO PAY FOR PRODUCTS WITH THIRD-PARTY CERTIFICATION

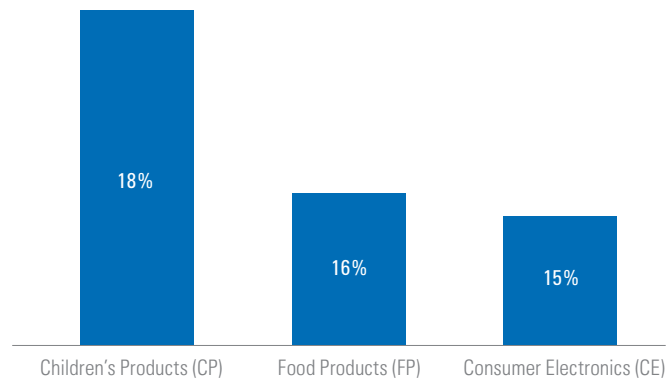


Base: All consumer study participants
 TOTAL = 5268
 Question: How much premium over an average price are you willing to pay for products that achieve safety standards as verified by a credible independent third-party, that are above and beyond what is required as mandatory by the government?

Source: TÜV SÜD Safety Gauge 2012

Consumers are apparently willing to pay the highest premium for children's products, with consumer study participants indicating a willingness to pay an 18% premium. This is followed by food products and consumer electronics, with 16% and 15% premiums respectively.

SECTOR BREAKDOWN PERCENTAGE OF PREMIUM CONSUMER STUDY PARTICIPANTS ARE WILLING TO PAY FOR PRODUCTS WITH THIRD-PARTY CERTIFICATION



Base: All consumer study participants
 Sample sizes in aggregate and by product category:
 TOTAL = CP: 3031, FP: 4701, CE: 4499
 Question: How much premium over an average price are you willing to pay for products that achieve safety standards as verified by a credible independent third-party, that are above and beyond what is required as mandatory by the government?

Source: TÜV SÜD Safety Gauge 2012

E. Is there a business case for truly safe products?

The findings of the TÜV SÜD Safety Gauge study clearly show that consumers are placing increased value on the safety of the products they purchase, and are becoming more knowledgeable about how to identify products that are more likely to be safe. These findings are evidence of a significant opportunity for businesses to leverage consumers' interest in safe products by making product safety a priority.

The additional investment (19%) by businesses to increase the safety of their products can result in fewer product recalls and reduce the cost (9%) associated with them. Improvements in product safety levels can also help businesses demonstrate leadership in their respective industry, support efforts to increase market share, and potentially provide access to new markets where higher levels of product safety are expected.

There is a gap between the value that consumers place on third-party product testing and certification and the importance that businesses place on testing and certification. Only half of management study participants report that they use third-party testing and certification services, despite the fact that 90% of consumer participants prefer products independently tested and certified for safety, and are willing to pay a premium (16%) for such products. Businesses that submit their products for third-party safety testing and certification help to ensure the safety of their products, demonstrate their overall commitment to product safety, and meet the expectations of consumers.

Finally, the TÜV SÜD Safety Gauge study indicates that businesses in all industry sectors share similar challenges regarding their product

safety efforts. Consumers will unquestionably continue to demand that businesses comply with the highest possible product safety standards. The only question is whether businesses will provide consumers with the assurances of product safety that they seek. In the end, businesses that master these challenges and achieve the highest possible product safety levels not only reduce risk to consumers but add genuine value to their products, thereby building brand reputation and making their products more attractive in a competitive marketplace. These advantages will ultimately provide businesses with greater leverage when it comes to the pricing of their products.

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