

## Current situation of design for sustainability application in visual communication design education in Vietnam

Thực trạng ứng dụng nguyên lý thiết kế bền vững trong giáo dục thiết kế truyền thông thị giác ở Việt Nam

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### Abstract

The alarming issues related to the environment and society are attracting greater and greater attention such as population explosion, depletion of natural resources, pollution, and global warming. This reality requires an immediate and synchronous solution on a global scale. Therefore, there is a need for a change in thinking and acting systematically to achieve the sustainable development goals. As can be proven, Design for Sustainability (DfS) plays an important role to provide solutions in order to reverse negative impacts. In design education, the DfS trend is one of the potential answers to the aforementioned problems. The application of DfS principles will equip students with the knowledge and skills to take on challenges, and strengthen the ideation and creativity process. DfS is also a standard that universities and similar institutions follow to engage in many sustainability and globalization practices in higher education. The purpose of this study is to evaluate the current situation of applying DfS in visual communication design training in Vietnam. Besides, the study clarifies not only the current motivations, but also the existing hindrances when applying this trend at educational institutions with training courses in communication design in our country.

*Keywords:* Design for Sustainability; communication design; design education; higher education.

### Tóm tắt

Nhiều vấn đề báo động liên quan đến môi trường và xã hội đang thu hút sự quan tâm của toàn thế giới, có thể kể đến như bùng nổ dân số, cạn kiệt tài nguyên thiên nhiên, ô nhiễm và sự nóng lên toàn cầu. Thực tế này đòi hỏi phải có giải pháp tức thời và đồng bộ trên phạm vi toàn cầu. Do đó, cần có sự thay đổi trong tư duy và hành động một cách có hệ thống để đạt được các mục tiêu phát triển bền vững. Có thể thấy, thiết kế bền vững đóng vai trò quan trọng với những giải pháp nhằm đảo ngược các tác động tiêu cực. Trong giáo dục thiết kế, xu hướng thiết kế bền vững là một trong những giải pháp tiềm năng cho các vấn đề nói trên. Việc ứng dụng các nguyên tắc thiết kế bền vững sẽ trang bị kiến thức và kỹ năng cho sinh viên giải quyết những thách thức, hỗ trợ quá trình hình thành ý tưởng và sáng tạo. Thiết kế bền vững cũng là một tiêu chuẩn mà các tổ chức giáo dục đại học tuân theo để tham gia vào nhiều hoạt động bền vững và

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toàn cầu hóa trong giáo dục đại học. Mục đích của nghiên cứu này nhằm đánh giá thực trạng áp dụng thiết kế bền vững trong đào tạo thiết kế truyền thông thị giác tại Việt Nam. Đồng thời, nghiên cứu cũng làm rõ những động lực và rào cản hiện có khi áp dụng xu hướng này tại các cơ sở giáo dục đào tạo ngành thiết kế đồ họa ở nước ta.

*Từ khóa:* Thiết kế bền vững; thiết kế đồ họa; giáo dục thiết kế; giáo dục đại học.

## 1. Introduction

Communication design (CMD) is defined as the harmonious combination of basic graphic elements with those that explain and convey information. Through graphic languages, designers present their ideas and feelings in print and electronic formats. In the digital era, graphic designers create digital worlds and communicate to their audiences/users through complementary combinations of words and images [1] [2] [3]. Today, graphic designers can work in several fields, such as publishing, advertising, journalism and branding, as well as in multimedia fields such as UI and UX design [4] [5] [6]. They are a part of the CMD field. According to Upwork in the category of Design and Creative, graphic design positions are in high demand in the work marketplace [7]. This is also one of the careers with a supply lower than demand in Vietnam, meanwhile, the market size of the CMD sector is forecasted that it will raise from 1.2 billion U.S. dollars in 2021 to 1.8 billion U.S. dollars in 2030 [8]. Besides, the CMD field has changed significantly over the years, especially with the changes in technology. Therefore, CMD education should be adapted and improve the curriculum to match the needs of the domestic market, and keep up with the current trends and innovations in design education worldwide.

At the theoretical level, CMD education aims to equip learners with knowledge and skills to solve problems through creativity and design language, choosing the most reasonable design solutions for products/services, or improvements and innovations to existing products/services [9] [10] [11]. CMD education is characterized by an emphasis on the

innovation of design thinking, flexibility in using visual languages and a multidisciplinary approach, as well as cooperation with new technologies [12] [13] [14]. As a result, innovation in design education might support and inspire learners, helping them develop creative thinking skills. This can stimulate innovation in design solutions towards sustainable development in the current context [15]. Indeed, the trend of design training associated with sustainable development goals is of concern on a global scale, in both theoretical and practical aspects. Design education now has a role in raising awareness, spreading inspiration and supporting tools and methods so that young designers can practice sustainable design solutions.

Design for Sustainability (DfS) is, therefore, a useful method and tool in design education. Researchers and educators widely discussed the potential application of research applying the principles of DfS in education. It is a design solution that focuses on environmental, social and economic aspects, the three pillars of sustainable development. Professors Manzini and Vezzoli [16] emphasize that environmental requirements should be considered at the very first stage of the design process, along with factors related to aesthetics, culture, cost, and performance of the product. According to McDonough and Braungart [17] "... when designers employ the intelligence of natural systems - the effectiveness of nutrient cycling, the abundance of the sun's energy - they can create products, industrial systems, buildings, even regional plans that allow nature and commerce to fruitfully coexist." In other words, DfS solutions will meet the needs of the present without compromising the ability of future

generations to meet their own needs by reducing resource use, reducing quality waste and toxic substances into the environment, equitable social development and a prosperous economy [18] [15] [19] [20]. The essence of DfS is the incorporation of sustainability principles in its design to figure out the common language between humans and the natural world without creating irreversible effects. UNEP has affirmed that a product has almost been decided on its environmental effects at the design phase. For instance, sustainable CMD also can be defined as a practice in which designers apply a sustainable conscious and embed sustainable strategies, processes, materials, etc.

In this context, in Vietnam, many universities have gradually introduced DfS into the curriculum. This study's purpose is to evaluate the current situation of applying DfS in CMD training in Vietnam. In addition, the study also clarifies the existing opportunities and barriers when applying this trend at educational institutions with training in CMD in our country. This study was conducted using an interdisciplinary approach and secondary data analysis to evaluate and discuss the results obtained and to clarify the research purpose outlined above. The results draw out that the perception of sustainability among professionals and society is gradually changing for the better. Government institutions show support for an education system with many related content of environmental and social sustainability. Even so, the enormous barriers in terms of economics and consumption habits are undeniable. These are covered in more detail in the following sections.

## **2. Results and discussion**

### ***2.1. Communication design education in Vietnam***

In Vietnam, CMD education started significantly late compared with developed

countries. However, in comparison with surrounding countries, Vietnamese CMD scene before 1945 is considered exceptional. One noticeable example is the appearance of the Indochinese stamps designed by Vietnamese artists, which has proved to be an affirmation of the artistic and design skills of Vietnamese artists at that time. From 1889 to 1949, it was issued 481 stamp samples and 01 stamp block in Indochina [21]. From 1945 to 1954, because of the war's effect, North Vietnam had a limited type of CMD method - mainly propaganda, but its highlight was very prominent war posters. The number of propaganda paintings in the period is 221 artifacts (139 inventory units) describing five main contents: Propagandizing for government policies - movements, fighting invaders, relationship between civilians and soldiers, role models, and celebrating major holidays [22]. Meanwhile, in the South-side, the CMD scenery was developed, especially commercial CMD [23]. From the Vietnamese war time, design education in general was not the focus of the North-side government. While important artworks made by acknowledged artists are fully credited, many of the CMD products at that period of history could be tracked to propaganda pictures and posters made by anonymous authors who are not professional painters, but soldiers who served in the resistance war. The credited artists are many famous names such as Trần Văn Cẩn, Nguyễn Đỗ Cung, Lương Xuân Nhị, Tô Ngọc Vân, Nguyễn Sáng, Mai Văn Hiến, etc. who all graduated from École des Beaux Arts de l'Indochine (1924-45), or the Indochina College of Fine Arts. While their contribution is essential, and their work is considered classic, the approach of communication from that time was fine art and decoration. In the South-side, decorative arts training schools were established very early. During the period from early the 20th century to 1975, students

were educated to create affiche, posters, symbol, armorial, brouche, book cover, postage stamp, name card and a wide variety of visual CMD [23]. As a result, it can be said that Vietnamese CMD had developed to a significant level before 1975.

After Đổi Mới (Innovation) in 1986, CMD witnessed the first major improvement. The new market economy provides opportunities for advertising, which is crucial for goods, trade fairs, and exhibitions. Almost instantly, a wide range of design varieties appeared, such as posters, packaging, billboards, and numerous other products. However, this situation also brought a new problem to the young design education system.

There was a huge gap between continuously developing technology and the base of design education theory. Vietnamese design market did not have the time to develop stably and keep up with the current technology. The outdated material from the old training curriculum did not adapt quickly enough to the requirement of the market. On the other hand, the market itself also did not have enough consideration for the importance of communication design, as the traditional market structure still lingered, and it did not realize the role of design knowledge. All above circumstances left new graduates of design department in the state of limbo, where they felt the confusion between the knowledge gathered in the academy, and the demand of the market. This undesirable situation can still be seen in the present. With a small survey of design students of Digital Art & Department from FPT University held by research team member, many students have been offered freelance jobs from an early stage of their education path, such as the first and second semester. However, most of them feel lost as the requirement of the clients often ignore the basic theory, even contradicting some basic rules of design that

they acquire from the universities. While most of them understand the reason of the situation, this inconsistency forces young designers to choose which kind of knowledge they consider useful: academic or practical, which is not supposed to be so different. This leads to the disappointment of many young designers. According to Dr. Ngo Anh Co (Vice-director of University of Industrial Fine Arts), this university's students are considered "desirable", and many of them, who are in the process of studying, have already had companies contact for design work. However, most businesses still have the mindset of applying design without a long-term investment. After having a new product, businesses often immediately forget the role of the artist and only care about commerce and profit, only a few businesses think about investing in designing the next product. With this existing state, it would require a long journey for the domestic market of CMD to find its own place compared with the international one.

On one hand, the market at time seems unstable, but on the other hand, it offers a lot of opportunities. With the fast-developing economy, many businesses start to pay attention to marketing. The good appeal becomes a significant advantage to attract customers. People in a better economic state are also more willing to pay for better designed products along with its function. Even consumers' awareness of packaging is not only in aesthetics and function, they are also interested in the environmental factors they relate to. Results from multiple studies have indicated that, in Vietnam and other countries, consumers are more willing to pay for items with sustainable packaging [24] [25] [26]. Especially in the younger generation of customers, they not only consider the beauty of the product, but also compare it with other

producers, and evaluate their environmental impacts [25]. This is the motivation for manufacturers to focus on investing in the product form, as well as the basis for developing a team of new designers in line with the urgent requirements of a raising target clients. Another factor that drives the development of CMD education is the demand of foreign markets. In the wake of Vietnamese economic blooming, investors from developed areas start to look for changes to benefit. With the amazingly fast development of the internet and social network in Vietnam, companies which have establishment in Vietnam or not can easily recruit high quality designers from Vietnam with cheaper prices, without even considering the location of the employees. Young designers can gain experiences from

freelancer jobs on the internet from the early stage of their education process, and can confidently apply for international companies with considerable knowledge about the market. At the same time, they can study global trends and ideas, motivating the development of domestic design education.

Based on the research result of numerous job-seeking websites (see more details in Table 1), it is undeniable that communication design, and graphic design in particular, is growing steadily, in spite of the negative effect from the COVID pandemic from 2019 to 2021. This is the table of the numbers of results based on the keywords used in the most popular job search websites in Vietnam, compared with other more traditional visual design careers.

**Table 1.** Number of results based on keyword on most popular job search website from Vietnam

Website	Number of result based on keyword			
	Graphic Design	Architecture	Interior Design	Fashion Design
123job.vn	2782	1931	3357	2688
carebuilder.vn	295	678	137	55
careerlink.vn	265	244	151	57
chotot.com	87	40	365	62
iconicjob.vn	303	359	200	192
joboko.com	778	598	112	73
jobsgo.vn	99	20	105	85
jobstreet.vn	1135	491	778	185
timviec365	588	441	366	68
topev.vn	1412	213	109	47
vieclam24h.vn	3214	2180	6211	3084
vietnamwork.com	98	118	121	60
vn.indeed.com	1120	8428	1667	3187

As can be seen from the table above, graphic design takes a significant part of the job market. Despite of being a relatively new profession, graphic design is always the first suggestion for the keyword “design”, showing the high demand for design careers in Vietnam. While it is true that many companies do not pay attention and invest long-term into design departments, the market witnesses many

successful design studios compiling of young designers who are well practiced after being freelancers or employees of said companies.

From higher education institutions’ perspective, CMD also attracts more and more learners as a promising career path. In the case of FPT University, for example, the number of students enrolling in Digital Art and Design Department increases over the year. In 2019,

there were 11 classes of Graphic Design with about 21 students per class, making a total of about 231 students. Because of the COVID pandemic, the number declined to 9 classes (i.e. 189 students in total). However, the number of classes increased in the following year to 21 classes with about 24 students in each class, equal to approximately 500 students. Last year, there were 25 classes in graphic design, meaning that about 600 students have applied successfully to this department. The year of 2023 has not finished yet, but in order to deal with the increasing amount of learners, the department has decided to increase the number of students per class to 30 (Data provided by FPT University). As such, it can be said that CMD education has developed steadily, and based on the market, it has enough reasons and opportunities to remain so in the foreseeable future.

## ***2.2. Current situation of design for sustainability application in design education***

To satisfy the need of the market, there are various choices of design programs for learners. This research focuses on several universities that provide the course of communication design, or similar classes. The earliest design education facilities in Vietnam are the public universities, and after that, private universities develop their own curriculum based on existing education systems, as well as learning from foreign programs. The most popular design education facilities are listed here respectively: University of Art and Design (UAD), National University of Art Education (NUAE), Vietnam-Korea University of Information and Communication Technology (VKU), Hanoi Architecture University (HAU), Danang Architecture University (DAU), and University of Architecture Ho Chi Minh City (UAH), FPT University (FPT), CMC University (CMC), Nguyen Tat Thanh University (NTT), and

Royal Melbourne Institute of Technology (RMIT).

The first similarity of all the design courses is that they require students to take part in 9 to 10 semesters to finish. Depending on each university, there would be 2 or 3 semesters every year, thus making the total time of the courses is approximately more than 3 years up to 5 years. In Vietnam, it is compulsory for every bachelor course to include the general knowledge subjects, such as physical education, foreign language, or national defence and security. Consequently, students are required to finish subjects of based professional knowledge. This category includes subjects like: photography, typography, digital tools, visual design principle, History of Art and Design, perspective, drawing and sketching, aesthetics, anatomy, etc. There are differences between the universities about which subjects are considered as base knowledge. In general, while it can be noticeable that there are minor variations from each university, the basic professional part of the course is mostly similar.

The dissemblance starts when specialized professional knowledge get analysed. In the case of most public universities, learners are provided with almost every subject about communicational design: logo, catalogue and brochure, packaging, poster, calender and greeting card, magazine and book cover, website, mobile application, exhibition and branding. In the case of UAD, the program focuses more on training students about structure analyses with many classes of drawing sculpture and human body. On the other hand, NUAE's students spend more time with advertising and marketing- related subjects. While all three of the major architecture universities introduce a fairly similar program, HAU is more specific about

material like glass and clothes studies. VKU has a unique program which requires basic knowledge of programming for graduation, making it leans toward website and application design profession.

As can be seen from the graphic design programs of above education facilities, their systems cover a large amount of subjects from many aspects of graphic design. This feature helps students with a wide range of knowledge, and makes them more flexible in their future careers. However, its drawback is that such programs may produce “jack of all trade” students without a professional focus in their studying time. To tackle that issue, FPT, and CMC provides students with elective subjects. While most of the universities let their students choose which subjects they prefer to participate, therefore creating a more personalized programs, FPT and CMC students have to choose between elective combos: Animation, Interaction design, and Communication Design [27] [28]. These choices may increase in the future based on the changes of the market. This structure provides students with in-depth knowledge about the profession, and make them choose a more suitable internship, or career path in the future. Finally, if the students need a short and more practice – focused program, organizations such as Arena Multimedia provide courses that skip most of the basic theory classes, and target the market requirement.

It is emphasized that CMD Education in Vietnam has a uniform knowledge-based structure in general. While it provides a solid foundation for students to advance into any career that they want, the programs are still quite rigid. Students are required to study plentiful subjects from classic art programs, which have their own benefits and drawbacks. To change this, universities such as FPT and

CMC create a more diverse study path for each student to focus on. Other approaches that can be noticed from HAU, VKU, and especially RMIT is filling the curriculum with elective subjects, so lecturers or professors can apply more experimental features and proper changes [29].

From the analysis above, it is clear that design education in Vietnam already has a concrete base of knowledge provided to students. This solid foundation provides students with enough understanding to confidently follow any more focused expertise such as Design for Sustainability after finishing bachelor programs. While it is not uncommon to have separated seminars or workshops about DfS, applying this approach in a more direct and profound still meets a lot of difficulties. If yes, the area that received the most current attention is sustainable fashion, with a number of pilot courses and workshops at several educational institutions [30]. However, most of the graduate projects, in all design fields, do not use DfS as a main approach. Normally, lecturers only imply DfS in forms such as tools, lectures, or practices, without adding an official learning outcome. The output standards of these universities do not mention sustainability factors as an important and essential requirement. This way of teaching is inconsistent, and harder to leave any significant changes in the education path of students. In this period, it is more common for Vietnamese design students to approach DfS in the postgraduate program.

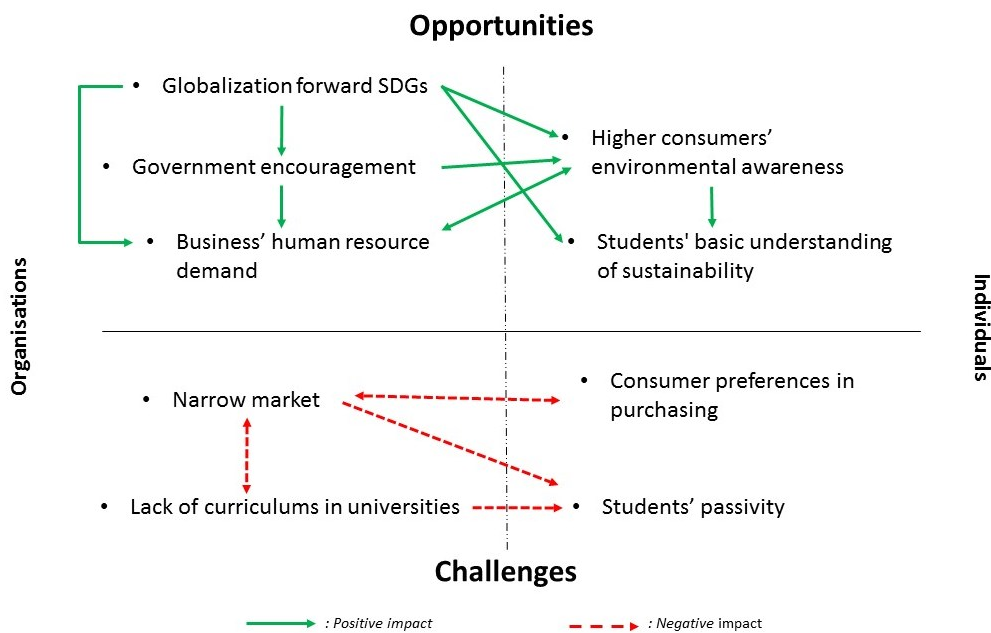
Compared with Vietnamese universities, most of foreign education facilities also offer teaching with DfS from Master programs. In the case of Politecnico di Milano (Polimi) – an infamous Italian university of design, the sustainable approach is an official option for undergraduate students to choose in their final

years of bachelor’s degree [31]. In the case of Rhode Island School of Design (RISD), their curriculum offers an exceedingly flexible, especially in the final year. All of the conclusive subjects are elective, which is an opportunity for applying DfS [32]. Maryland Institute College of Art (MICA) also have the similar feature with RISD, with numerous elective studios in the end of the program [33]. As can be seen from the above results, academic institutions prefer to employ DfS in the end of the course, when students have enough basic design knowledge, and skills for research and develop their product with a new approach. In summary, Vietnamese universities can research and learn from foreign education institutions about applying DfS to their programs.

**2.3. Opportunities and challenges of sustainable design application in communication design education in Vietnam**

Putting the idea of sustainability in design education means that higher education

institutions should pay more attention to sustainable principles. It plays an important role in carrying out sustainable development goals (SDGs) worldwide, as well as in Vietnam in particular. Change in design education is one of the best ways to influence communication. When a designer creates works that carry a sustainable message, it can reach many people, effectively educate their awareness gradually. There are many opportunities to promote sustainability in CMD in Vietnam, although opportunities and challenges always co-exist. Many factors generated these opportunities and challenges. This article categorises them as the influence of individuals and the influence of organisations (see figure 1). These influences come from a number of related parties, such as governments or non-governmental organisations, consumers, brands or manufactories, universities and students. They have relationships with each other and interact closely.



**Figure 1.** Diagram of the opportunities and challenges of DfS education in visual communication design



### *a. Opportunities*

Sustainable development is the overarching model of the world. In the globalization context, the world's shift towards sustainability has a significant impact on Vietnam. Number fourth SDG of the United Nations (UN) is quality education, one of its targets indicates that: “By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture’s contribution to sustainable development” [34]. In Vietnam, UN funding is contributing to advance SDGs [35]. Besides, in 2022, European Commission (EC) issued a new strategy to encourage sustainable products in many fields [36]. These moves of the Euro affected all global supply chains, and Vietnam is no exception. These international motivations promote Vietnamese education to include sustainable principles in curriculums.

The Vietnamese government is generating favourable conditions for education for sustainability. The Vietnamese government launched green development policies and has carried out follow SDGs. According to Decision No. 1755/QĐ-TTg, creative industries (e.g. design, advertisement, visual art, architecture, etc.) need to develop diversified, synchronous and modern sustainably [37]. These policies are directly encouraging universities to develop sustainable education programs.

In Vietnam, through receiving information from mass media, consumers are promoting their environmental responsibility. They want more green products, and are willing to pay higher costs, approximately 15%-20% [38].

Consumers’ demand is an orientation of brands and manufactories which is promoting them to become more sustainable.

Under the impact of the world context, government policies and consumers’ needs, current businesses are forced to move toward sustainability. As a result, the demand for high-quality human resources with knowledge of sustainable design is increasing.

Almost of Vietnamese students have a basic awareness of sustainability. They understand that eco-friendly activities are necessary, and willing to learn about sustainable principles in design [39]. Many young entrepreneurs, who are university alumni, are running businesses based on SDGs core values and their successes inspire the next generations of students.

### *b. Challenges*

Yet consumer awareness has increased, in the real market of a low-middle-income country like Vietnam, sustainable products are still not a priority due to their high price compared to the common ground. As a result, there is an inconsonance between customer behaviour and their awareness of sustainability due to the products’ prices [38]. This is the situation that is happening over the world, not only in Vietnam.

The sustainable product market is currently small-scale. Although businesses understand that sustainable products are better and necessary to increase competitiveness, high production costs and/or low convenience are big barriers. For instance, all the manufactories know that recycled packaging is more sustainable than traditional plastic one; however, recycled materials are often more expensive than less sustainable materials. Traditional material supply is also more easily found than recycle materials. Besides, from consumers' viewpoint, single-use products are

convenient and they might not care if these products will be thrown away or recycled.

Sustainable development related topics were included in Vietnam's higher education institutions [40]. However, in the creative and design field, there are very few courses for sustainable principles and SDGs. In particular, until now, there is no formal course that applies DfS to CMD in higher education.

Almost all the students understand environmental issues but their knowledge is still shallow. Students are also passive in learning and practicing DfS. Currently, sustainability is not one of the criteria for evaluating works in universities which certainly cannot encourage students to be more active in learning about DfS.

Applying DfS to CMD can support prospective designers who will significantly promote the value of sustainable development through their products/services. As a result, designers and their products can cause the chance of environment sustainable awareness of more people. Vietnam has many opportunities to expand DfS in CMD education, but those opportunities are still facing many drawbacks. The diagram in Figure 1 shows that we require methods and strategies to enhance positive interactions and minimize negative impacts. DfS application in CMD education will contribute to sustainable oriented change, and in the opposite direction, other stakeholders' positive variation will promote DfS application in CMD education.

### 3. Conclusion

Based on the above discussion, it is emphasized that sustainability is a mega-trend in the world and is gradually becoming one of the essential requirements in the design field. The rising demand for sustainable design increases the need for designers who are

equipped with knowledge and skill in sustainability. The design education trend associated with the SDGs that aim to support the learner is rising on a global scale. However, design education in Vietnam is still in the experimental stages. DfS have been included in the design curriculum as a tool, but assessments have not been integrated. The output standards of these design programs do not mention sustainability as an essential requirement. Faced with that reality, the application of DfS principles to CMD education presents many opportunities but also challenges. On the one hand, global trends, government policies, and consumer awareness might stimulate DfS embedded in design programs. On the other hand, consumer behaviour also has affected the innovation of products/services. This can lead to a change in design curricula in higher education institutions. Moreover, the awareness of learners plays an important role in the demand and spread of DfS. Recently, design students have a better understanding of sustainability, although they are still passive in learning and practising sustainable design. Therefore, integrating DfS in CMD will be a positive step forward for the future of sustainable design in our country.

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