**Table S1.** Influencing variables.

| **Influencing variables** | **Key references** | |
| --- | --- | --- |
| Drivers and barriers in GB/ IEQ technology adoption | Strategy for indoor air quality in hospitals |
| Higher initial cost, long pay-back | Wang (2018)[1], Ahn (2013)[2], Nguyen (2017)[3], Afful (2022)[4], Yang (2015)[5], Mittal (2020)[6] | Hama (2023)[7] |
| Extra cost for technologies, certifications | Nguyen (2017)[3], Afful (2022)[4], Wang (2021)[8] | Hama (2023)[7], Macnaughton (2015)[9] |
| Cost benefits/ expenses during operation | Nguyen (2017)[3], Ahn (2013)[10], Pandey (2017)[11] | Hama (2023)[7] |
| Market demand, Client’s interest | Wang (2018)[1], Nguyen (2017)[3], Afful (2022)[4], Mittal (2020)[6], Ahn (2013)[10] | Hama (2023)[7] |
| Branding and competitive advantages | Nguyen (2017)[3], Yang (2015)[5] |  |
| Government incentives; incomplete/ confusing legal framework | Wang (2018)[1], Nguyen (2017)[3], Afful (2022)[4], Yang (2015)[5], Du Plessis (2007)[12] | Hama (2023)[7] |
| Public awareness | Wang (2018)[1], Ahn (2013)[2], Nguyen (2017)[3], Yang (2015)[5] | Rodrigo (2018)[13] |
| Inadequate/ available material; Lack of testing institute, measurement system, tool supplier | Wang (2018)[1], Nguyen (2017)[3], Afful (2022)[4], Yang (2015)[5], Wang (2021)[8] | Hama (2023)[7], |
| Database and information requirements | Afful (2022)[4], Du Plessis (2007)[12] | Hama (2023)[7], ASHRAE (2021)[14], Rodrigo (2018)[15], Brittain *et al*. (2020)[16] |
| Site planning, outdoor pollution data | WHO (2021)[17], Kim *et al* (2016)[18] | ASHRAE (2021)[14], Rodrigo (2018)[15], Ibrahim(2022)[19], Gola (2019)[20], Settimo (2017)[21] |
| Project planning, early-stage assessment design | Afful (2022)[4], Northridge (2013)[22], Hua *et al.* (2019)[23] | , Brittain *et al.* (2020)[16], Settimo (2017)[21] |
| Conflict/ Compatible with design components (dimensional aspects, finishing and material) | Wang (2018)[1], Kim *et al.* (2016)[18] | ASHRAE (2021) [14], Brittain *et al.* (2020)[16], Ibrahim(2022)[19], Gola (2019)[20] |
| Collaborative integration between agencies/stakeholders; Communication and partnership | Nguyen (2017)[3], Afful (2022)[4], Yang (2015)[5], Mittal (2020)[6], Pandey (2017)[11], Du Plessis (2007)[12] | Hama (2023)[7], ASHRAE (2021)[14] |
| Incremental risk and uncertainties in processes | Nguyen (2017)[3], Wang (2021)[8] |  |
| Technical understanding/ capacity and skills in designs, building, project team | Nguyen (2017)[3], Afful (2022)[4], Yang (2015)[5], Mittal (2020)[6], Wang (2021)[8], Pandey (2017)[11], Du Plessis (2007)[12] | Hama (2023)[7], Rodrigo (2018)[24] |
| Education and training | Nguyen (2017)[3], Afful (2022)[4], Yang (2015)[5], Du Plessis (2007)[12], | Rodrigo (2018)[15], Ibrahim(2022)[19], Gola (2019)[20], |
| Local construction industry condition | Nguyen (2017)[3] Kim *et al* (2016)[18] | Ratajczak (2022)[25] |
| Control method for Indoor pollutants (ventilation system, disinfectant activities, etc.) |  | ASHRAE (2021)[14], Rodrigo (2018)[15], Brittain *et al*. (2020)[16], Ibrahim(2022)[19], Gola (2019)[20], Shen (2023)[26], |
| Effects of ventilation system on effectiveness, energy efficiency, and health, e.g. | Aaltonen (2013)[28] | Hama (2023)[7], Macnaughton (2015)[9], Rodrigo (2018)[15], Settimo (2017)[21], Gola (2019)[20], Shen (2023)[26], Ratajczak (2022)[27] |
| Technology adoption process and future legislation adaptability | Yang (2015)[5], Du Plessis (2007)[12], Sepasgoza (2016)[29], | TCVN 13521:2022; Rodrigo (2018)[15], Hai (2018)[30], |
| Building maintenance, operational strategy | Pandey (2017)[11], Aaltonen (2013)[18] | ASHRAE (2021)[14], Rodrigo (2018)[15], Ibrahim(2022)[19], Gola (2019)[20], Shen (2023)[26] |
| Medical activities, medical equipment, and room function |  | Rodrigo (2018)[15], Ibrahim(2022)[19], Gola (2019)[20], Shen (2023)[26], |

GB: green building; IEQ: indoor environmental quality.

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