

Supplementary file

Table S1. Full-text articles excluded, with reasons.

Author, year	Exclusion Motif
Ma and Ghiselli (2016)	2
Makani (2016)	2
Marais et al. (2017)	3
Marques et al. (2008)	2
McCaffree (2009)	2
Medeiros et al. (2014)	2
Mello et al. (2011)	2
Michalec et al. (2018)	2
Morais et al. (2017)	1
Morgan (2008)	2
Nigam and Kumari (2018)	2
Nilsson et al. (1998)	2
Onyango et al. (2012)	2
Oostindjer et al. (2016)	1
Peregrin (2011)	2
Pinto et al. (2018)	2
Pistorello et al. (2015)	2
Pitts et al. (2018)	2
Principato et al. (2018)	2
Pulkkinen et al. (2015)	2
Raab et al. (2017)	4
Ranran (2013)	1
Salleh et al. (2016)	1
Salzberg (2014)	1
Salzberg (2016)	2
Santos et al. (2005)	2
Sarmiento et al. (2018)	4
Schupp et al. (2018)	2
Seabra et al. (2013)	2
Singh et al. (2017)	1

Sirilarbanan (2017)	2
Stöckli et al. (2018)	2
Steen et al. (2018)	2
Strasburg et al. (2015)	2
Strasburg et al. (2017)	2
Sullivan (2012)	1
Tatàno et al. (2017)	2
Tommasetti et al. (2018)	4
Umlas et al. (2018)	3
Vinck et al. (2019)	2
Wang et al. (2017)	2
Wang et al. (2013)	2
Wang et al. (2008)	1
Williams (2015)	2
Wilson and Garcia (2011)	1
Wilson and Garcia (2011)	2
Xiaoying (2018)	1
Yang et al. (2018)	2
Yun-hong et al. (2007)	1
Zandonadi et al. (2012)	2
Zhang et al. (2017)	2
Zotesso et al. (2016)	2
Zain et al. (2017)	2
Ahmed et al. (2018)	2
Alonso, Kok and O'Brien (2018)	1
Alves and Ueno (2015)	2
Benvenuti et al. (2016)	2
Betz et al. (2015)	2
Birisci and Mcgarvey (2016)	2
Blondin et al. (2015)	2
Booi-Chen et al. (2015)	4
Boschini et al. (2018)	2
Breewood (2016)	2
Bristow and Jenkins (2006)	2

Carvalho et al. (2013)	2
Cavagnaro and Gehrels (2008)	2
Charlebois, Creedy and Von (2015)	2
Chen (2018)	2
Cheng et al. (2019)	2
Chou et al. (2016)	2
Christ and Burritt (2016)	2
Cuglin, Petljak and Naletina (2017)	1
Dawson (2011)	2
Delazeri, Batisti and Silva (2015)	2
Escobar et al. (2015)	2
Esparza, Rivero and Sanchez (2016)	2
Ferasat (2009)	1
Filimonau, Krivcova and Pettit (2019)	2
Francis and Lipinski (1977)	2
Goldstein (2007)	1
Heikkilä et al. (2016)	2
Hentschke et al. (2015)	2
Hu et al. (2013)	2
Jacobs and Zanini (2013)	2
Jang (2016)	2
Jang et al. (2017)	2
Ju and Chang (2016)	4
Kasim eIsmail (2012)	2
Khodaei, Wong and Tiwari (2013)	1
Kinasz (2009)	2
Kraus (2019)	3
Kukanja, Planinc and Šuligoj (2016)	2
Kwok, Huang and Hu (2016)	4
Lang and Peres (2016)	2
Lima, Nóbrega and Nogueira (2016)	2
Lin and Chung (2013)	4
Llach et al. (2013)	2
Loureno et al. (2013)	1

Lu (2016)	4
Bengtsson and Seddon (2013)	3
Birisci and McGarvey (2018)	2
Blondin and Economos (2016)	2
Bringhent et al. (2017)	1
Carvalho et al. (2018)	2
Eriksson, Lindgren and Persson (2018)	2
Falasconi et al. (2015)	2
Fieschi and Pretato (2018)	2
Godfrey and Feng (2017)	4
Goonan, Miroso and Spence (2015)	2
Gupta (2012)	2
Hall (2009)	2
Hauschildt (2014)	2
Kenniff, Flowers and Pho (2016)	2
Kuo, Hsiao and Lan (2005)	3
Løes and Nölting (2011)	2
Lima and Sousa (2011)	2
Miao et al. (2005)	2
Moss (2017)	1
Petrescu (2012)	4
Pirani et al. (2016)	2
Razza et al. (2009)	2
Reinders et al. (2017)	2
Rodrigues et al. (2015)	2
Sel et al. (2017)	2
Sherman (2003)	1
Sørensen et al. (2016)	3
Strotmann et al. (2017)	3
Sussman and Gifford (2011)	4
Thiagarajah and Getty (2013)	2
Thorsen et al. (2010)	2
Vintila (2011)	1
Vischers (2015)	4

Wang (2013)	2
Wansink and Just (2013)	2
Weissheime et al. (2015)	2

Legend – Exclusion criteria: 1 -) comments, letters, conference, review, abstracts, papers and books (n=21); 2 - studies that only analyzed the importance or feasibility of implementing indicators but did not implement them (n=95); 3 - studies that were not performed in food services (n=7); 4 - studies that focused on consumers, not in the food production (n=12).

Table S2. Database and terms used to search references on sustainability indicators applied in food services.

Database	Search (Fev 19 th , 2019)
Lilacs	(tw:((MH: sustainability OR sustainable OR "environmental impact" OR "environmental management" OR “environmental sustainability” OR “social sustainability” OR “economic sustainability” OR “waste management”) AND (MH: restaurant OR "food service"))))
Pubmed	(((((sustainable) OR sustainability) OR "environmental management") OR "environmental sustainability") OR "social sustainability") OR "economic sustainability") OR "waste management" AND ("food service") OR restaurant
Scopus	("sustainability" OR "sustainable" OR "environmental impact" OR "waste management" OR "environmental management" OR "environmental sustainability" OR "social sustainability" OR "economic sustainability" AND "food service" OR "restaurant")
Web of Science	TS=(sustainability OR sustainable OR "environmental impact" OR "waste management" OR "environmental sustainability" OR "social sustainability" OR "economic sustainability") AND TS=("food service" OR restaurant)

Table S3. Quality criteria of the studies selected for the systematic review of sustainability indicators applied in food services.

Reference	Were the indicators analyzed characterized?	Has the indicator been implemented in food services?	Did the evaluated indicator present a positive implementation response?	Was the study design appropriate?	Was the statistical analysis adequate to the objective of the study?	Did the results answer the main question?	In the case of food services, was the sample of establishments selected for analysis of the indicators representative and randomly determined?	Percentage of positive answers (yes) for each study that attained the quality criteria
Cavagnaro and Gehrels, 2009	Y	Y	Y	Y	NA	Y	N	85.71%
Babich and Smith, 2010	Y	Y	N	Y	Y	Y	Y	85.71%
Elbaum, 2010	Y	Y	Y	Y	NA	Y	N	85.71%
Baldwin, Wilberforce and Kapur, 2011	Y	Y	Y	Y	Y	Y	Y	100%
Dauner et al., 2011	Y	Y	Y	Y	Y	Y	Y	100%
Tikkanen, 2012	Y	Y	Y	Y	NA	Y	N	85,71%
Ip-Soo-Ching and Veerapa, 2013	Y	Y	Y	Y	NA	Y	N	85.71%
Higgins-Desbiolles, Moskwa and Gifford, 2014	Y	Y	Y	Y	NA	Y	N	85.71%
Moskwa, Higgins-	Y	Y	Y	Y	NA	Y	N	85.71%

Desbiolles and
Gifford, 2015

Perramon et al., 2014	Y	Y	Y	Y	Y	Y	Y	100%
Demicco et al., 2014	Y	Y	Y	Y	NA	Y	N	85.71%
Ranke et al., 2014	Y	N	N	Y	Y	Y	Y	71.42%
Iaquinto, 2014	Y	N	Y	Y	Y	Y	Y	85.71%
Haddock- Millar, Sanyal and Muller- Camen, 2015	Y	N	N	Y	Y	Y	N	57.14%
Cook, 2015	Y	N	Y	Y	Y	Y	Y	85.71%
Derriks and Hoetjes, 2015	Y	Y	Y	Y	NA	Y	Y	100%
Vivaldini and Pires, 2016	Y	Y	Y	Y	NA	Y	N	85.71%
Derqui, Fayos and Fernandez, 2016	Y	Y	N	Y	NA	N	Y	71.42%
De Chabert- Rios and Deale, 2016	Y	Y	Y	Y	NA	Y	Y	100%
Dragon, 2016	Y	N	Y	Y	Y	Y	Y	85.71%
Vial, 2016	Y	Y	Y	Y	NA	Y	N	85.71%

Mota et al., 2017	Y	N	Y	Y	Y	Y	N	71.42%
Clark, 2017	Y	Y	Y	Y	Y	Y	Y	100%
Laakso, 2017	Y	Y	Y	Y	NA	Y	Y	100%
Amato and Musella, 2017	Y	N	Y	Y	Y	Y	Y	85.71%
Iraldo et al., 2017	Y	Y	Y	Y	Y	Y	Y	100%
Vu et al., 2017	Y	Y	Y	Y	NA	Y	N	85.71%
Wen et al., 2018	Y	N	N	Y	NA	Y	Y	71.42%
Sakaguchi et al., 2018	Y	N	Y	Y	Y	Y	Y	85.71%
Bharucha, 2018	Y	N	Y	Y	Y	Y	Y	85.71%
Martins-Rios et al., 2018	Y	Y	Y	Y	Y	Y	Y	100%

Legend: Y – yes; N – no; NA – not applicable

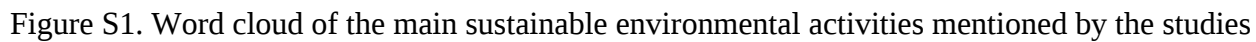




Figure S2. Word cloud of the main sustainable social activities mentioned by the studies



Figure S3. Word cloud of the main sustainable economic activities mentioned by the studies