

Table S1 Applications – System Dynamics Modeling in Supply Chain Management

SC Key Elements	References
Processes	(Kalafatas and Peeta 2009)(Peng et al. 2009) (Magableh 2007) (Fu, Aghezzaf, and De Keyser 2014) (Zhang 2009)(Khaji et al. 2009)(Mula et al. 2013) (Huang and Liu 2010) (Campuzano-bolar ín, Mula, and Peidro 2013)(Lee and Chung 2012) (Jianyu, Haiyan, and Juan 2010) (Tang and JINGKe 2012)(Kamath and Roy 2007) (Brockhaus et al. 2016)(Patroklos et al. 2006)(Zhao et al. 2018)(Georgiadis and Besiou 2010)(Vimmerstedt, Bush, and Peterson 2012)(Fainaze, Lester, and Rodrigues 2013)(Qi 2012)(Yang and Du 2007)(Jie Bai and Dong Mu 2014) (Lehr, Thun, and Milling 2013) (Janamanchi and Burns 2013) (Ge and et al 2002)(Hamiche et al. 2017)(Heidarzadeh, Doniavi, and Solimanpur 2017) (Sarimveis et al. 2008) (Zhao, Huang, and Mai 2005)(Vimmerstedt et al. 2012) (Campuzano-Bolar ín, Mula, and Peidro 2014)(Campuzano, Mula, and Peidro 2010) (Yang and Du 2007)(Ghadge et al. 2018) (Gonul Kochan et al. 2018)(Jie Bai and Dong Mu 2014) (Tama, Akbar, and Eunike 2018) (Tsaples and Tarnanidis 2017)(Langroodi and Amiri 2016) (Georgiadis, Vlachos, and Iakovou 2005)(Campuzano-bolar ín et al. 2013) (Li and Yan 2016)(Wang 2011)(Jianyu et al. 2010)(Nikzamir 2017) (Wu and Lu 2010)(Tang and JINGKe 2012)(Kamath and Roy 2007)(Janamanchi and Burns 2013)(Briano et al. 2010)(Heidarzadeh et al. 2017) (Sarimveis et al. 2008) (Fainaze et al. 2013) (Campuzano-Bolar ín et al. 2014) (Campuzano et al. 2010) (Zhang, Zhang, and Hou 2015)
Components	(Zou and Shan 2013) (Brockhaus et al. 2016)(Liu et al. 2018)(Lingyun, Yuetong, and Changrui 2006) (Sarimveis et al. 2008) (Georgiadis and Besiou 2010) (Janamanchi 2009)(Gu and Gao 2012)(Saleh et al. 2016)
Network structure	(Kumar, Mukherjee, and Kumar 2013) (Peng et al. 2009)(Yan and Liu 2018) (Pan, Liu, and Li 2017)(Xumei and Jalal 2013)(Wood 2011) (Shamsuddoha 2015)

Table S2 Study variables in system dynamics models based on the Supply Chain.

Variable	References
Costs	(Zou and Shan 2013)(Peng et al. 2009)(Brockhaus et al. 2016)(Zhang, Li, and Xu 2006)(Zhang 2009)(Saxena and Jain 2012)(Lee and Chung 2012)(Sachan, Sahay, and Mohan 2006)(Azadeh and Vafa Arani 2016)(Qionghua 2017)(Janamanchi and Burns 2013)(Sachan, Sahay, and Sharma 2006)(Wang, Liu, and Yang 2009)(Sadeghiamirshahidi et al. 2014)
Bullwhip Effect	(Zou and Shan 2013)(Kumar et al. 2013)(Jin D. 2009)(Huang and Liu 2010)(Rodrigues et al. 2010)(Campuzano-bolar í et al. 2013)(Wang 2011)(Jianyu et al. 2010)(Wan and Lin 2012)(Campuzano et al. 2010)(Campuzano-Bolar í et al. 2014).
Inventory	(Zou and Shan 2013)(Kumar et al. 2013)(Magableh 2007)(Fu et al. 2014)(Yan and Liu 2018)(Jin D. 2009)(Zhang 2009)(Xumei and Jalal 2013)(Mula et al. 2013)(Huang and Liu 2010)(Liu and Huang 2010)(Cheng, Chiou, and Tai 2008)(Spiegler et al. 2016)(Rodrigues et al. 2010)(Campuzano-bolar í et al. 2013)(Lee and Chung 2012)(Jianyu et al. 2010)(Tang and JINGKe 2012)(Kamath and Roy 2007)(Janamanchi and Burns 2013)(Ge and et al 2002)(Hamiche et al. 2017)(Heidarzadeh et al. 2017)(Sarimveis et al. 2008)(Zhao et al. 2005)(Vimmerstedt et al. 2012)(Campuzano-Bolar í et al. 2014)(Campuzano et al. 2010)(Yang and Du 2007)(Ghadge et al. 2018)(Gonul Kochan et al. 2018)(Jie Bai and Dong Mu 2014)(Tama et al. 2018)(Yan et al. 2017)(Janamanchi 2009)
Offer Price	(Teimoury et al. 2013)(Nikzamir 2017)(Mutingi and Mbohwa 2012)(Gonul Kochan et al. 2018)
Demand	(Kumar et al. 2013)(Peng et al. 2009)(Greco et al. 2011)(Teimoury et al. 2013)(Hamed and Pishvaee 2009)(Lehr et al. 2013)
Storage	(Peng et al. 2009)(Zhang et al. 2006)(Teimoury et al. 2013)(Zhang 2009)(Pan et al. 2017)(Kumar and Nigmatullin 2011)(Khaji et al. 2009)(Das and Dutta 2012)(Das and Dutta 2013)(Tsaples and Tarnanidis 2017)(Langroodi and Amiri 2016)(Georgiadis et al. 2005)(Campuzano-bolar í et al. 2013)(Li and Yan 2016)(Wang 2011)(Jianyu et al. 2010)(Nikzamir 2017)(Wu and Lu 2010)(Tang and JINGKe 2012)(Kamath and Roy 2007)(Janamanchi and Burns 2013)(Briano et al. 2010)(Heidarzadeh et al. 2017)(Sarimveis et al. 2008)(Fainaze et al. 2013)(Campuzano-Bolar í et al. 2014)(Campuzano et al. 2010)(Zhang et al. 2015)(Mutingi and Mbohwa 2012)(Yang and Du 2007)(Qi 2012)(Ghadge et al. 2018)(Gonul Kochan et al. 2018)
Transportation	(Magableh 2007)(Oliva and Revetria 2008)(Mula et al. 2013)
Environmental sustainability	(Magableh 2007)(Mula et al. 2013)(Li, Ren, and Wang 2016)(Nikzamir 2017)
Manufacturing flow	(Brockhaus et al. 2016)(Patroklos et al. 2006)(Zhao et al. 2018)(Georgiadis and Besiou 2010)(Vimmerstedt et al. 2012)(Fainaze et al. 2013)(Qi 2012)(Yang and Du 2007)(Jie Bai and Dong Mu 2014) (Lehr et al. 2013)(Saleh et al. 2016)
Information flow	(Zhang et al. 2006)(Georgiadis et al. 2005)(Wen and Weiping 2010)
Production	(Zhang et al. 2006)(Xumei and Jalal 2013)(Way 2015)(Kamath and Roy 2007)(Qionghua 2017)(Control et al. 2006)(Wen and Weiping 2010)
Distribution Risks	(Zhang 2009)(Xumei and Jalal 2013)(Tsaples and Tarnanidis 2017)(Vlachos, Georgiadis, and Iakovou 2007)(Huang and Liu 2010)(Liu and Huang 2010)(Georgiadis et al. 2005)(Rodrigues et al. 2010)(Azadeh and Vafa Arani 2016)(Kamath and Roy 2007)(Chen, Song, and Zhou 2009)(Jie Bai and Dong Mu 2014)
Capacity	(Greco et al. 2011)(Rodrigues et al. 2010)(Wang et al. 2009)
Service level	(Li et al. 2016)(Way 2015)(Gu, Tagaras, and Gao 2014)(Liu and Fan 2011)
Reverse logistics	(Hamed and Pishvaee 2009)(Kamath and Roy 2007)(Mutingi and Mbohwa 2012)(Qi 2012)(Yang and Du 2007) (Khaji et al. 2009)(Mula et al. 2013)(Liu and Huang 2010)(Heidarzadeh et al. 2017)
	(Das and Dutta 2012)(Das and Dutta 2013)(Vlachos et al. 2007)(Wu and Lu 2010)(Wan and Lin 2012)(Gu et al. 2014)(Zhao et al. 2018)(Lehr et al. 2013)