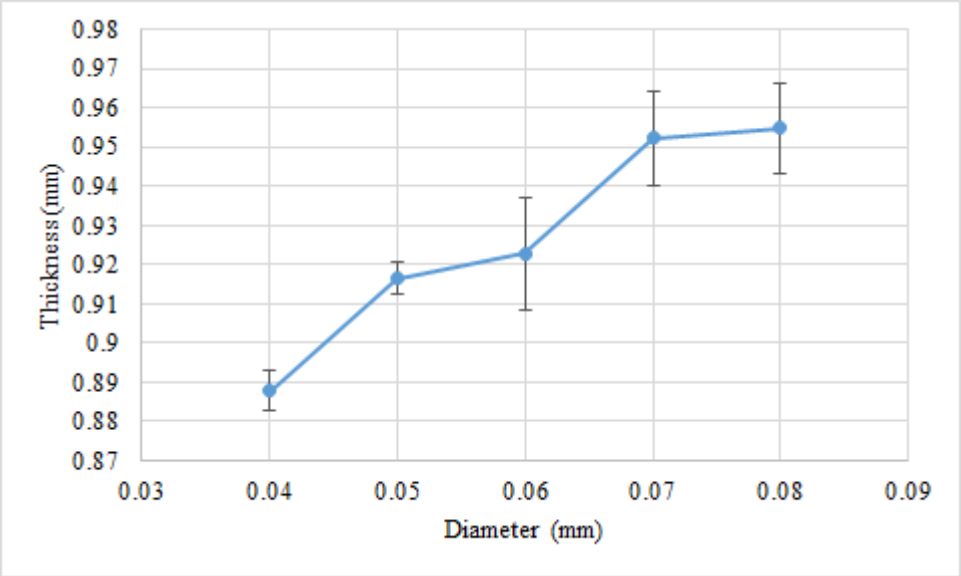

Figure 5.17: Thickness of NCF at 1 kPa of pressure with variation of diameter of a chain

that the transverse shear of a chain is kept the same regardless of the diameter size.

Same with diameter result, the convergence of the result for NCF thickness cannot be achieved when the transverse shear ratio is kept to be constant. Hence, the adjustment of transverse shear ratio is also needed. The transverse shear ratio adjustment that needs to be made can be seen in Table [5.11]. The thickness result after the application of this adjustment can be seen in Table [5.13] and Fig [5.18].

Table 5.13: Thickness of NCF at 1 kPa of pressure with adjusted transverse shear ratio and variation of diameter

Diameter	Thickness
0.04	0.925
0.05	0.924
0.06	0.942
0.07	0.949
0.08	0.958

The result after the adjustment of transverse shear ratio perfectly correlates with the result from compaction stiffness investigation. The result reaches a convergence whenever the diameter of each chain is in the range 0.04 and 0.05 mm. Hence, it is recommended to use the diameter of 0.05 with adjusted transverse shear ratio for a chain to get an accurate result of NCF behavior under compaction load.