Malaysian Chinese speakers have been exposed to multilingual and multi-dialect environment which to the carryover of features of other languages and dialect into Malaysian Mandarin (thereafter Maldarin). Currently, Mandarin is under-researched. Therefore, the objective of present study was to investigate the salient phonological features of Maldarin spoken by Chinese adult speakers in Malaysia. Factors such as dialectal background and Pinyin system were further investigated. The present study is a quantitative and qualitative study which involved 100 Chinese adults. Speech data was collected through Mandarin Phonological Naming test which sampled consonants, vowel, and tone. Narrow transcription was done on the gained speech data. Scoring and analysis forms were used to calculate overall production accuracy for both quantitative and qualitative analysis purposes. Statistical analysis via software SPSS version 18.0 revealed that dialectal factor does not have significant influence on the overall production accuracy of each phonological component (consonant: $X^2(4, N=2200)=0.830$, $p>0.05$; vowel: $X^2(4, N=1900)=4.368$, $p>0.05$; tone: $X^2(4, N=400)=3.404$, $p>0.05$). However, Pinyin system showed a significant influence on the overall production accuracy of each phonological component (consonant: $z=-2.615$, $p<0.05$; vowel: $z=-5.291$, $p<0.01$; tone: $z=-3.017$, $p<0.05$). Salient phonological features of Maldarin were discussed, including, consonants (/tʂ, tʂʰ, ʂ/ [ts, tsʰ, s], /tɕ, tɕʰ, ɕ/ [ts, tsʰ, s]), vowel (/u̯ɛ/ [u], /i̯o/ [iɔ]) and tone (tone 1, 2, 3 tona 4). The present study is the first large scale study in Malaysia used to provide locally appropriate preliminary normative data on Maldarin phonology. The findings will serve as a guideline for evaluation and intervention in clinical settings. In addition, Standard Maldarin features will be established as a phonological assessment tool for assessing and treating Maldarin speaking client with articulation and phonological disorder.